

HARPER'S  
GUIDE  
To WILD  
FLOWERS

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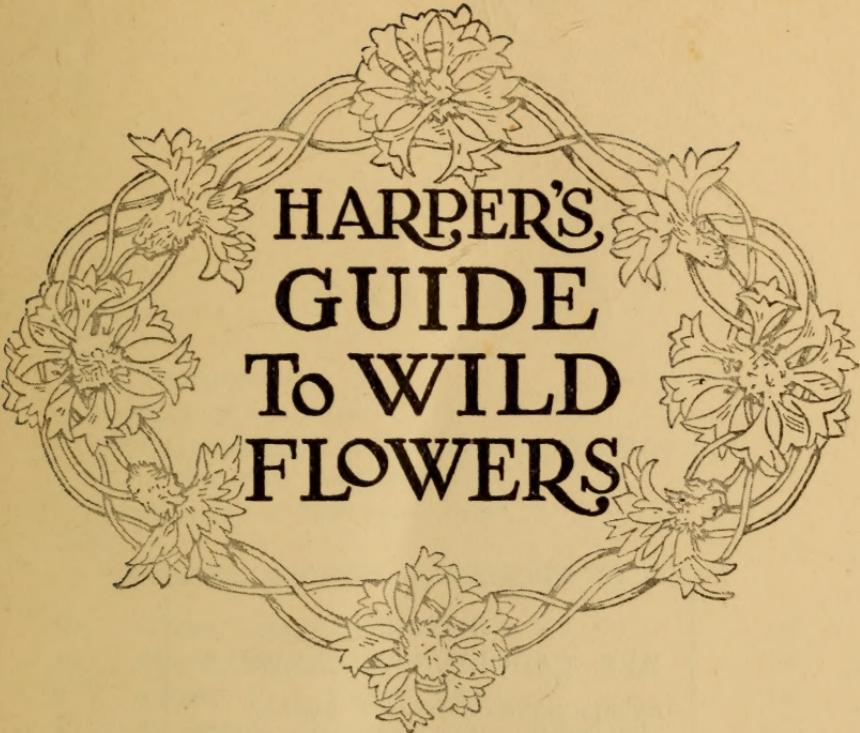
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Wild Rose. (*Rosa canina*).



# HARPER'S GUIDE To WILD FLOWERS

BY  
MRS. CAROLINE A. CREEVEY



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BOOKS BY  
MRS. CAROLINE A. CREEVEY

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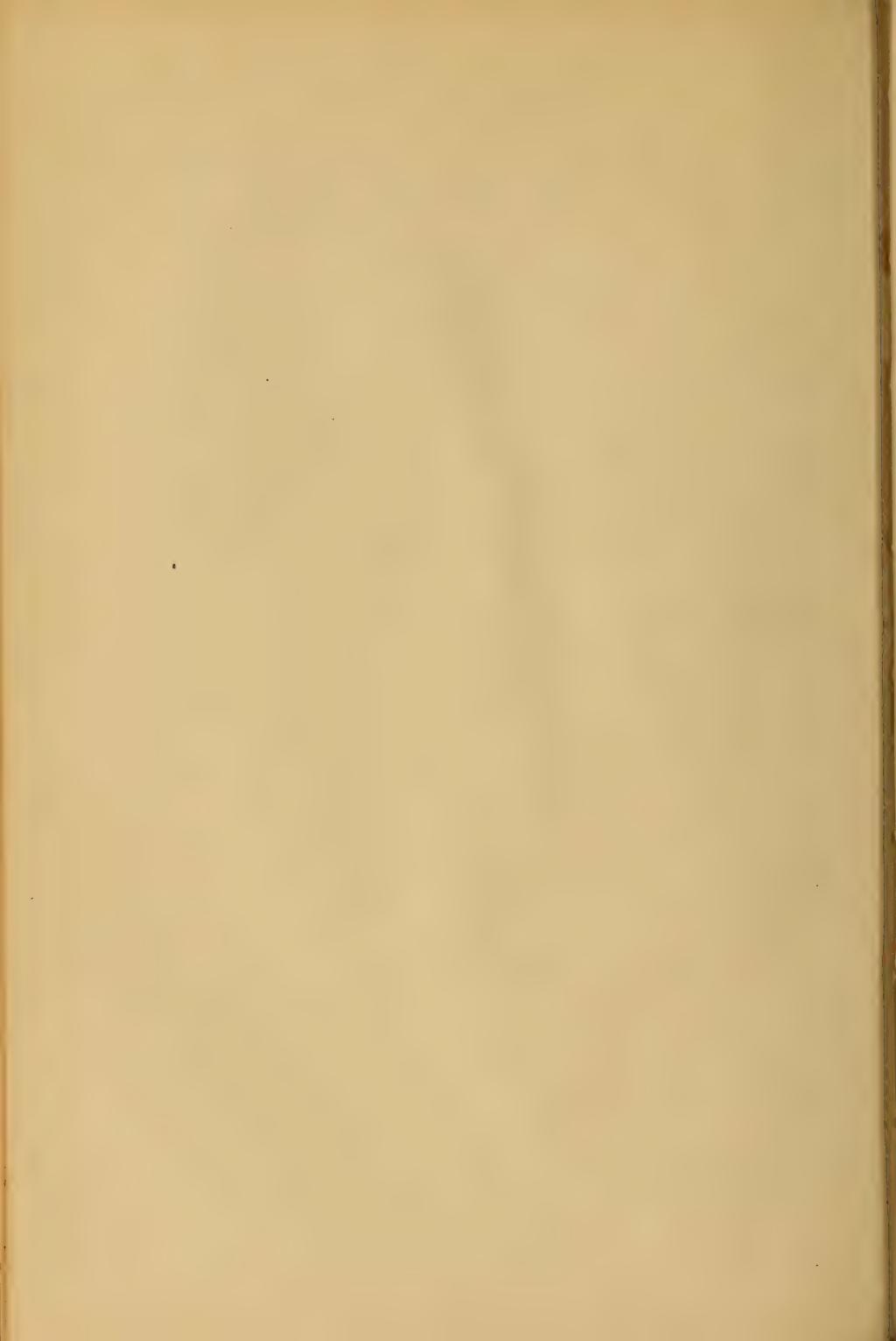
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## INTRODUCTION

THIS book explains the easiest way of telling flowers and plants. These ways are based upon the new classification.

This classification is the one presented in the seventh edition of *Gray's Manual of Botany*, published in 1908. It embodies the decisions of the Vienna Congress of 1905. The Congress came to an agreement respecting the botanical names and classifications of American flowers, which we hope will not need to be revised. Some old names, dear to us, have come back. Greater simplicity as well as permanency has been aimed for.

The first way of telling flowers is by color. It is the simplest means of identification, and to this the most space is given.

Secondly, flowers may be identified by their dwelling-places or habitats.

Thirdly, flowers are shown by seasons, the time and order of their blossoms.

This book is a *Guide* to the flowering plants of the Atlantic seaboard, New England, the Middle States, and, to a limited extent, of the Southern States. It is interesting to note the wide latitudinal range of some plants along the entire Atlantic coast. As the climate grows warmer, plants ascend the mountains, and New England vegetation reappears two thousand feet high in Virginia. Plants which are "local," and but seldom found, the size of this book excludes. Plant immigrants, unless well established, are not enumerated.

Taking New York as the center of a wide circle, any person possessing no knowledge of botany (except such as may be acquired from the "Explanation of Technical Terms") may identify any flower and learn something of its story. There is every reason to believe that there is need of a book complete in its means of identification.



HARPER'S  
GUIDE TO WILD FLOWERS



# HARPER'S GUIDE TO WILD FLOWERS

## CHAPTER I

### PLAN OF THIS BOOK

FEW dream of the numbers of flowers which grow all around them. In a short walk one may come across fifty species, and, sitting upon the ground in the woods in summer, one may touch twenty or thirty without moving.

The study of flowers may be called pre-eminently a vacation pursuit, since the summer, our leisure time, is the flowering season. Walking is in danger of becoming a lost art unless some purpose other than healthful exercise is found. Let our little friends of the fields and woods entice us, and their acquaintance, by the help of the *Guide*, will prove a fascinating pursuit.

It is not only the names of the wild flowers which we all want to know, but the prominent facts connected with their life history. Such facts as the following may be learned:

The red, fuzzy leaves and stems of the sundew are neat little traps for catching small insects upon which this plant varies its normal diet.

The rich colors and strange shapes of orchids and many other flowers are devices for securing the visits of insects which are useful to the flower as pollen-carriers.

Some flowers, in case they fail to secure insect pollination, produce "hidden blossoms" (*cleistogamous*), which have no beauty of form or color, but which remain closed until after pollination has taken place.

## HARPER'S GUIDE TO WILD FLOWERS

Certain plants which cannot bear too great radiation from their leaf-surfaces at night, "sleep," that is, fold their leaflets together. Examine a clover leaf after dark, and look up into a locust-tree by night. The latter looks as if it were hung with strings.

White flowers which cannot attract insects by their bright colors, are apt to be strong-scented.

Many such things, more marvelous than fairy stories, are revealed to us in the study of our common flowers.

### Why Do Flowers Have Color?

The organs concerned in the production of seed by which flowering plants are propagated, are the stamens, actively, and pistils, passively.

Stamens produce in their anthers pollen grains, which must be carried to the pistils, either those of the same flower or of another. This process is called pollination. "Cross-pollination," the transference of pollen to a different flower, gives seed greater potency, so that stronger and hardier plants result from it than when the pollen falls upon its own pistil. How is cross-pollination to be obtained? Not by any movements of the flower itself. The aid of some foreign agent must be invoked.

In the evolution of plants, flowers and insects began to appear upon the earth about the same time. At first the colors of all flowers were dull green, greenish white, or white. The food of most insects is nectar, a sweet secretion found in the very heart of flowers, which by them is converted into honey. Insects fly to flowers, dive into them in their efforts to secure the coveted nectar, and, in so doing, necessarily rub their bodies against the upright stamens. If the anthers are ripe and the pollen grains are free, they are caught in their hairy bodies or limbs. The insects then fly to another flower and leave the pollen upon its stigma, provided that is ripe and ready. Many flowers, if neglected by insects, cannot produce seed at all. If the stamens and pistils mature at different times, or if they are so situated that they cannot reach one another, self-pollination cannot take place. Insects must be attracted to such flowers.

That insects are not color-blind may be seen from the fact that they will follow to their undoing "nectar paths,"

## PLAN OF THIS BOOK

streaks or lines of color found on the stems of some insect-devouring plants which lead straight to the smooth, fatal rim of the cup.

### Evolution of Color in Flowers

Colors of flowers, we may believe, were evolved somewhat in this way: A flower, hitherto white or green, showed by chance a bit of red or yellow, blue or pink, perhaps only a streak or dot. Insects were attracted to that flower, and it was pollinated, while others lacking the color may have been neglected. The tendency of both plants and animals to reproduce marked traits of their parents is well known. The young plant springing from the marked flower would probably reproduce the color rather more strongly, and its offspring more strongly still. In time, perhaps after many generations, a perfectly colored flower would be the result.

We therefore judge that those flowers which have evolved color are high in rank. By the rank of a plant is meant the place it holds in the ascending series from simplest and lowest to the most complex, the most highly organized, and the most successful in securing its own dissemination and propagation.

Flowerless plants, the algae, mosses, and ferns, appeared first on the earth. These were succeeded by "wind lovers," flowers like those of pines and hemlocks, which are pollinated by the wind. The wind blows impartially, caring not at all for the fair spread of the lily bell or the soft scent of the violet. No color has, therefore, appeared in flowers which are pollinated by the wind.

"Insect lovers" alone are colored and fragrant. Sometimes dull flowers are surrounded by red or yellow bracts, as in the painted cup (*Castilleja coccinea*). Night-blooming flowers, adapted to night-flying moths, sometimes keep their petals shut in the daytime; for the right insect is wanted by a flower. Insects too large or too slim, or in any way unsuited to the shape of the flower, do not make good pollen-carriers, and the methods for keeping them away make an interesting chapter. Flowers adapted to flies often evolve fetid odors such as flies like. Bees generally avoid the ill-smelling flowers, and turn to the honeysuckle or clover blossom.

## HARPER'S GUIDE TO WILD FLOWERS

We may, then, think of bright colors and odors of flowers as banners hung out to inform the insect army that the feast is ready. Since most flowers have not yet attained to their highest condition, white and greenish colors are predominant, while next follow yellows, pinks, blues, and purples. There are few really red blossoms. Dark crimson, magenta, and crimson purple are generally counted as red. A thousand years hence, when evolution has made greater progress among the plants, a white flower may be rare.

### Habitats

The influence of surroundings is especially noticeable in the plant world. A plant born to wet soil will not flourish in dry. One adapted to open fields will not bury itself in the shade of deep woods. If it is transplanted to new environments, it may vary its normal type in the endeavor to adapt itself to its new dwelling-place. For this reason, if the soil be changed, as when marshes are drained or fields cultivated, new plants will spring up. Weeds follow the farmer's plow. When the forest disappears, the forest flora will also go. Build a road and see the typical roadside plants spring up along its borders. Certain "fireweeds" cover burnt-over districts as if by magic. Whence come the new plants? Do their seeds always lie in the soil waiting for favorable conditions? The "alternation of crops" which farmers find so useful to their soil and harvests may have its suggestive prototype in nature.

### The Flower Calendar

The season for blossoming remains unchanged for every plant, forming a never-failing flower calendar. Thoreau says that if he were waked up from a long winter's nap and placed in the woods or fields, by seeing what flowers were in bloom around him he could tell almost the day of the month. Not more surely does the first robin announce the coming of spring than do the bloodroot and hepatica peeping from under the dead leaves of the woods. The spring flowers fade and are succeeded by those that like the hot sun of July and August. Asters and hawkweeds tell of the coming of autumn, the end of the flower season, and the approach of winter.

## PLAN OF THIS BOOK

### Nomenclature

The botanical names in this book follow the seventh edition of *Gray's Manual*. The custom now is to drop capitals from geographical adjectives in writing specific names. They are retained in names derived from those of persons. Thus we write *canadensis*, but *Beckii*.

Accents teach correct pronunciation, a matter of some difficulty in botanical names. The acute accent ( ' ) means the short sound of the vowel of the accented syllable; the grave ( ` ), the long sound.

The illustrations are those, with a few added, which were drawn for *The Flowers of Field, Hill, and Swamp* by the etcher and artist, the late Benjamin Lander. His work has won deserved admiration.

Some plants in this book are illustrated with excellent colored plates. For purposes of identification, color drawings are invaluable. Flower lovers hope for a cheap and easy process of tinted photography, some day, by which all plants may be represented by their colors as well as forms.

The arrangement of species in the different chapters is from those of lowest rank, through those still higher, to the composites, the highest of all the families in rank.

## CHAPTER II

### CHARACTERISTICS OF SOME OF THE MORE IMPORTANT BOTANICAL FAMILIES

IN classifying flowers, species which resemble one another are grouped into genera; genera having points of resemblance are grouped into families; these into orders, sub-classes, classes, etc. Many of the great families have characteristics so marked that we can at once relegate a flower to its family, thus taking a long step toward its identification. In the order of their rank, the principal marks of several important families are given here.

**THE LILY FAMILY.**—Although humble in rank, this Family enrolls many beautiful flowers. If the leaves are long and narrow, with the veins running their entire length, from base to apex (parallel-veined); if they are found mostly at the base of the flower stalk, only a few whorled or scattered along the stalk, the plant is probably a member of the Lily Family. (There are exceptions as in the wild smilax, which is net-veined.) They spring from corms, bulbs, or from an underground stem, rootstock. The parts of the flower are in threes or sixes (called 6-androus). The calyx is not distinguishable from the corolla in size and color. We speak of such a floral envelope as the *perianth*. The six divisions of the perianth may be entirely separate and spreading, or they may assume a funnel shape below. There are six stamens, one standing opposite each of the perianth divisions. Ovaries are 3-celled, surmounted by a long style and club-shaped stigma.

Besides the bright-hued and conspicuous wild lilies proper, here belong many of the spring's early and delicate flowers, as the dog's-tooth violet, star of Bethlehem, trillium, and bellwort.

**ORCHIS FAMILY.**—The orchids which are seen in such variety of form and color in our greenhouses are mostly im-

## CHARACTERISTICS OF BOTANICAL FAMILIES

portations from tropical countries. The Family is represented with us by several of our dearest wild flowers. Their structure is complicated, but can be understood by studying some of the larger members of the Family. It is especially designed to secure insect pollination. The perianth is composed, usually, of six divisions, the three outer sepals often colored, not green. Of the three inner, the petals, one is larger than the others, and is called the *lip*. This is variable in shape, perhaps prolonged into a deep spur at its base, perhaps being a sac or pocket (as in the moccasin flower), perhaps fringed, always a conspicuous part of the flower. This is the platform—the front door, so to speak—for the insect to stand upon while pushing its head into the interior as it seeks the coveted nectar. Cypripediums have two good stamens, with the rudiment of a third. All other genera have but one fertile stamen, which is called the *column*, joined in a peculiar manner to the style. These organs are, to the uninitiated, quite unlike those of all other flowers. The pollen grains in the single anther are collected into masses called *pollinia*, and, if an insect enters such a flower and rubs its head against the ripe anther, the entire contents of the anther are pulled out, the insect flying away with the pollinia adhering to its proboscis in what would seem to be an uncomfortable manner. Entering another flower, the little creature is relieved of its superfluous burden, leaving the pollinia upon the rough or sticky stigma.

There are 7,000 species of orchids known, and for grace, beauty of form and color, they stand unrivalled in the flower kingdom.

**CROWFOOT FAMILY.**—This large Family includes some acrid-narcotic poisonous species. Buttercups cut and mixed with grass often produce a sore mouth in cattle which eat them. The calyx is sometimes colored like the corolla, and often the latter is wholly wanting. There are many stamens and pistils. Often a head of pistils may be observed, each one producing a single seed. Some species are aquatic, and the leaves under water are finely cut. All the leaves, indeed, may be much divided, as in buttercups, and the flowers may be single or panicled. Besides crowfoots and spearworts, this Family includes anemones, hepaticas, the clematis, marsh marigold, larkspur, and columbine.

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**MUSTARD FAMILY.**—Whoever has examined the flower of the little yellow mustard knows that its four petals spread open like a cross. It has four sepals, also, each one lying between two petals. Curiously, there are six stamens, suggesting the Lily Family, but two of the stamens are short, only four appearing as if maintaining the flower number. The pod of this Family is different from that of any other, being 2-celled, with a partition down the middle. In opening for the escape of seeds, the outer sides split off from the middle and separate from the central portion. The pod may be long and narrow, or short and thick.

The flowers bloom in spikes, the lower ones being the oldest and often maturing into pods, while the tip of the spike is in bud. The colors are yellow, white, and purplish. Shepherd's purse, cress, black and white mustard belong here.

**ROSE FAMILY.**—Considering the shrubs and fruit-trees which belong to this Family, it may well take precedence of all others in importance. A rose hip, if cut open, will show the stamens all clinging to the inside of the hip, which is really the calyx tube. The petals and sepals are mostly in fives, but stamens and pistils are many. Underneath the sepals there are often green bracts which make the number of these organs seem twice as many. Our fruit-trees, apples, pears, cherries, plums, belong to this Family, and their blossoms, large and fragrant, are among the lavish gifts of spring. Shrubs like the hawthorn are numbered here, and the luscious strawberry, juicy blackberry, as well as the wild rose, with its dark-pink buds, make this Family second to none in fragrance, beauty, or usefulness.

**PULSE OR PEA FAMILY**, to which our vegetables, the pea and bean, belong, is at once recognized by its *papilionaceous* corolla, so called from its fancied resemblance to a butterfly. The petals are so different they have received special names. The large, upper one, which infolds the others in bud, is the *standard*, generally broad, erect, or turned backward. The narrower, opposite, side-petals are *wings*. The lower one is considered to be two petals united, and, being hollowed and boat-shaped, is named the *keel*. The keel usually incloses the stamens and pistils. Stamens of these flowers number 10 (rarely 5), one being free, the other 9 mostly united by their filaments into a tube which is split

## CHARACTERISTICS OF BOTANICAL FAMILIES

open on the upper side. Through this split the pistil projects, later the pod or *legume*. The calyx is unequally 5-divided. To this Family belong not only the pea and bean, but cassia, liquorice, logwood, and other useful plants. None is poisonous. Many are ornamental climbers, with showy blossoms and graceful foliage. Their leaves are often compound, and the leaflets may be sensitive, folding when touched, also many of them "sleep" at night. The Pea Family contains herbs, shrubs, and trees.

The SPURGE FAMILY contains the castor-oil and croton-oil plants; manihot, from which tapioca is made; and rubber-trees, the latter having come into great prominence in these days of automobiles and rubber tires. The stamens and pistils occur in different flowers, sometimes on the same plant, sometimes on different ones. Such flowers are called *monæcious* or *diæcious*. It is a very large Family in the tropics, but with us is known mostly in the genus *Euphorbia*. The manner of the flowering of this genus is singular. There is no proper calyx or corolla, but the flowers are surrounded by an *involucre* resembling a calyx divided into 4 or 5 lobes which are colored and cup-shaped. Between the lobes are thick glands. Within the involucre (once considered the true flower) numerous staminate flowers are borne, each consisting of a single stamen jointed on a tiny stalk (*pedicel*), very like a filament. A small bract accompanies each stamen. From the center of the cluster of stamens a single pistil is raised on a long stalk, the pistil consisting of a 3-celled ovary, 3 styles, and 6 stigmas. The plants contain a milky juice.

PARSLEY FAMILY.—The flowers of plants belonging to this Family grow in *umbels*, which are frequently compound, forming *umbelllets*. They possess oil-tubes—minute canals running lengthwise of the fruit—containing aromatic oil, which can only be seen with a strong microscope.

The style and its stigma develop in advance of the stamens, thus preventing self-pollination. Insects carry the pollen of one flower to the stigma of another, both of which happen to be ripe at the same time.

The stems are generally hollow.

The plants vary in size and color, but nearly all have the umbel form of blossom and the compound leaves. The

## HARPER'S GUIDE TO WILD FLOWERS

flowers are so minute that they are difficult to study. A professional botanist said that he had found life too short to spend over the parsleys.

The fruit is single-seeded, like the familiar fennel and caraway seeds which our grandmothers used to take to church in order to while away the long minutes of dreary sermons.

The vegetables parsnip, carrot, celery, and parsley are useful members of this Family. Here, too, belong the anise and cumin, though not the mint, whose tithing has stood for punctilious observance of unimportant "matters of the law" ever since the days of the Pharisees.

Many of the roots and seeds of parsleys, when wild, are very poisonous, and acquaintance with them is desirable for this if for no other reason, than that one may warn children and ignorant persons against them. None is poisonous to touch.

**HEATH FAMILY.**—This Family contains many fine shrubs as well as herbs. The flowers are regular, the corolla consisting of 4 or 5 petals, or, if tubular, as many lobes. Stamens are of the same number as the petals. They open by means of little holes or chinks, and this is an unfailing mark by which the Heaths may be recognized.

Many small inhabitants of the woods are heaths, as the wintergreen, pyrola, pipsissewa, Indian pipe, and bearberry. Here the cranberry, of Thanksgiving fame, belongs, also the blueberry and huckleberry. Others are rhododendrons, laurels, azaleas, and the fragrant clethra. Some, as the Indian pipe, are parasitic plants without green leaves or stems.

**MILKWEED FAMILY.**—The construction of the flower of milkweed is so singular that it should be described. Without the magnifying-glass one sees 5 short, pointed sepals hidden under 5 larger petals turned backward and downward. The next row of bodies standing up over the flower-center may be taken for stamens. But through the glass we see that these are tubular bodies, colored like petals, containing a curved, needle-like hook. The latter is called a *horn*; the tube inclosing it, a *hood*. All 5 of the horns lie protectingly over the stamens and pistil. Pull off the hoods, with their inclosed horns, and see what strange things the stamens are.

## CHARACTERISTICS OF BOTANICAL FAMILIES

The filaments of the stamens, united into a tube, stand around the pistil. The long cells of the anthers open lengthwise, often in bud. The pollen, instead of being in grains, is in a long, yellow, flat mass, one in each cell (in shape like an apple seed), which can be squeezed out entire with thumb and finger. Two of these, from different, adjacent anthers, cling together by a thread, and adhere to insects visiting them and so are carried to other flowers.

There are seemingly two pistils (really two ovaries) united above into a large, flattish, sticky stigma which catches and holds the pollen-masses borne to it by bees. In the flower the pollen-masses lie too low for its own stigma. The insect visit is absolutely necessary for fertilization. Now perhaps we have found a use for the hoods. They probably collect and store nectar, and so invite the insects, upon whose help the flower is dependent. The reflexed corolla could not hold any nectar, and without nectar bees would pass the milkweed by.

The MINT FAMILY is large and important. The general characteristics of the Family are square stems, opposite or whorled leaves, a fragrance given out by numerous oily glands, and a fruit of four achene-like nutlets, 1 in each of 4 visibly distinct divisions of the ovary, from the center of which arises the style. The corolla is a tube with 2 lips, each lip, or sometimes the upper one only, divided into lobes. A square-stemmed, herbaceous plant, with the well-known minty odor and the 4-lobed ovary, is quickly relegated to this Family.

Many of the housekeeper's best flavorings—lavender, marjoram, thyme, sage, rosemary—belong here, as well as the horehound, catnip, pennyroyal, and peppermint which used to hang drying in our grandmothers' attics, the most prized belongings of the home pharmacy. Whether the drugs which have superseded these simple herb drinks are, on the whole, more conducive to long life is a question for life-insurance companies to consider.

COMPOSITE FAMILY.—The largest and most advanced of all the Botanical Families is the Composite. It contains one-tenth of all known species of flowering plants, one-eighth of which are indigenous to North America. The Composites were called compound flowers by older botanists.

## HARPER'S GUIDE TO WILD FLOWERS

They are, in reality, many small flowers, called *florets*, united in a compact head called a *disk*, upon a flat or conical *receptacle*, either with or without petal-like *rays* circled around them, all with a calyx-like *involucre* of green bracts underneath. The disk of the daisy contains from 200 to 500 florets. Examined under the magnifying-glass, each floret is seen to have its own tiny calyx, whose tube is joined to a 1-celled ovary in which is found a single, dry seed, an *achene*. The top of the calyx takes different forms, a knowledge of which is of use in classifying the flower. In the daisy it is abruptly cut off; in the chicory it is cup-shaped; in the sunflower, a pair of rabbit-like ears; in the sneeze-weed, 5 scales; in the thistle, tufts of fine hairs; in the dandelion, such tufts raised on a long handle, like a dust-brush. These developments of the calyx-top are called *pappus*. A single bract grows outside the calyx called *chaff*. The corolla is tubular, divided into 5 points at the summit. The anthers of the five stamens form a ring, on the inside of which they open, discharging their pollen on a pistil yet unripe. This with its two-cleft style and stigma, as it grows and elongates, carries the pollen with it. The insect, hovering and crawling over the florets, collects the pollen on its body, conducts it to other flowers whose pistils happen to be ripe, thus bringing about cross-pollination.

The Composites are divided into *Tubulifloræ*, or those with all tubular florets; and *Ligulifloræ*, those with strap-shaped florets. In many of the first there are ray flowers arranged along the margin, which, upon examination, will be found to contain a pistil only, or to have neither pistil nor stamens. The daisy is one of the *Tubulifloræ*.

The strap-shaped florets have flat corollas, as if the tubes were slit open, in the disk, and no ray flowers. The dandelion is an example.

### Explanation of Terms Used in Describing Flowers

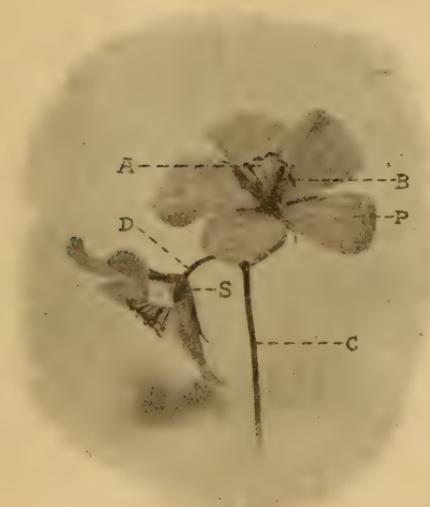
Every *perfect* flower contains four sets of *organs*, arranged in circles at the top of the flower stem or *axis*. At the center a pistil stands. Often there are several pistils. This organ consists of three parts, *ovary*, *style*, and *stigma*. The *ovary* is a small sac at the base of the pistil in which *ovules* grow, (rudimentary seeds). The *style* is a slender, hollow tube

## EXPLANATION OF TERMS

connecting the ovary with the stigma, and it may be absent without impairing the pistil. The *stigma* is a knob or head, sticky and porous, at the tip of the pistil.

*Stamens* surround the pistil in one or more circles. There are two parts to a stamen, the *anther*, and its stalk or *filament*. The anther is a double sac (generally) in which pollen grains are borne, kept while they are growing, and set free by some sort of an opening, as a slit or chink, when they are mature. A pollen grain is conducted to a stigma by an insect or in some other way, falls upon the rough, porous surface of that organ, is nourished by it, grows, sends a branchlet, a tiny thread, down the style into the ovary where the ovules lie. By changes in structure the ovules are converted into true seeds which are for the propagation of the plant.

These are the *essential organs* of a flower, and no seed can be produced without their union with one another.



WILD GERANIUM (GERANIUM MACULATUM)

a. Stamens; b. Pistil; p. Petals; s. Sepals; d. Pedicel; c. Peduncle

## HARPER'S GUIDE TO WILD FLOWERS

The *floral envelope* surrounds these essential organs, consisting of *corolla* and *calyx*. The separate divisions of a corolla are *petals*, and of the calyx are *sepals*. The petals make the color and beauty of most flowers, while the sepals are generally green. All these organs are collected upon a *receptacle*.

The stalk which supports a flower is called a *peduncle*. The stalk which carries one of a cluster of flowers is a *pedicel*. A pedicel is a secondary peduncle. When the flower stalk springs directly from the root and bears no leaves, we speak of it as a *scape*.

The way in which flowers are arranged upon the stem, whether singly, in clusters, elongated spikes, close heads, etc., is spoken of as *inflorescence*. A clustered inflorescence is of advantage to flowers which depend upon insects for pollination, as they thus appear larger, show more color, and can be seen from a greater distance than if single. These clusters are called *spikes* or *racemes* if elongated, *corymbs* if flattened, *heads* if rounded like the clover blossom, *umbels* if like the wild carrot.

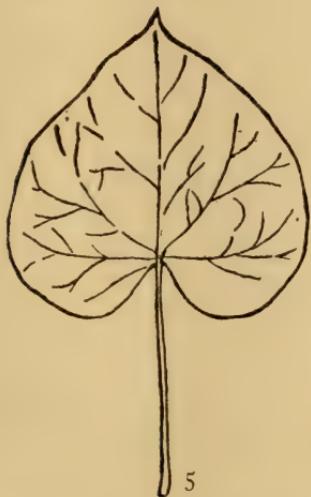
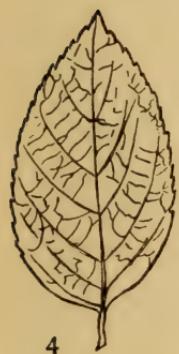
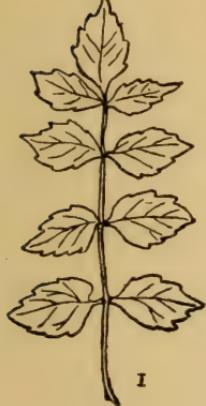
Two other forms of inflorescence should be mentioned, the *spadix* and *catkin*. The *spadix* is an elongated, fleshy axis upon which small flowers are borne, and it is often covered by a *spathe*, a green or colored leaf hanging over the spadix. The Jack-in-the-pulpit and Calla lily are examples of this kind of inflorescence. Often the stamens and pistils grow in different parts of the spadix, above or below.

A *catkin*, like that of the willow or birch, is a spike of flowers in which each is accompanied by a little, dry sort of *scale*. In many trees and shrubs, staminate and pistillate flowers occur in different catkins which look quite unlike one another.

An *involucre* is one or more circles of bracts, often colored and looking like petals, surrounding a head of flowers. The white, showy leaves of the flowering dogwood blossom are the involucre belonging to the small, dull flowers within.

### Leaves

In describing leaves, we say they are *simple*, when undivided, like the leaf of a chestnut, or *compound* when divided into separate leaflets. The leaf of clover is compound,



#### ILLUSTRATING SHAPES OF LEAVES

1. Compound, Pinnate; 2. Digitate; 3. Lanceolate; 4. Oblong; 5. Heart-shaped; 6. Arrow-shaped.

## HARPER'S GUIDE TO WILD FLOWERS

and may further be spoken of as *trifoliate*. A horse-chestnut leaf is compound, and, being composed of five spreading leaflets, springing from one point is a *digitate* (finger) leaf. A *pinnate* leaf is one like the ash or locust trees. The outlines of leaves are *smooth*, or *serrate* (like the teeth of a saw), *wavy*, *incised*, *dentate*, words that are in common use.

The veinings of leaves are of two kinds, *parallel* and *net*. Grass leaves, also tulip and iris leaves, are parallel, the veins running from base to tip of leaf in nearly parallel lines. Net-veins run from one or more prominent *midribs* to all parts of the leaf, branching irregularly, interlacing with one another, making meshes like those of a fish-net. The veins of a leaf are its frame, its supporting skeleton.

A leaf-stalk is called a *petiole*. Leaves which are joined to the main stem without any stalk of their own are said to be *sessile*, a word meaning *sitting*. *Stipules* are leafy appendages found at the bases of some leaf-stalks, large and leaf-like or small and scale-like.

### Annuals and Perennials

*Annuals* die down every year and are reproduced from seed the next season. *Perennials* continue to live year after year. *Biennials* have a life of two years, storing food for themselves the first year, upon which they live the next, dying down after that.

A leaf *axil* is the angle formed by the leaf and its stem, on the upper side of the leaf. Most buds spring from leaf axils.

The foregoing and a few additional technical terms are summed up in the following

### GLOSSARY OF BOTANICAL TERMS

*Achene* or *akene*.—A small, dry, indehiscent, 1-seeded fruit.

*Anther*.—That part of the stamen which contains the pollen, usually consisting of 2 cells which, when the pollen is ripe, open by a slit.

*Axil*.—The upper angle at the junction of stem and branch.

*Bloom*.—A soft, whitish, powdery appearance on fruit, leaves, etc.

*Bract*.—A small leaf at the base of or upon the flower-stalk.

*Calyx*.—The outer flower-leaves, usually green.

*Capsule*.—The dry, dehiscent fruit of a compound pistil, as in poppy.

## GLOSSARY OF BOTANICAL TERMS

*Chaff*.—Bracts or scales which become dry and thin. Used especially of a scale accompanying the small flowers of the Composite family.

*Claw*.—The long, narrow base of a petal, as in pinks.

*Cleistogamous*.—Closed pollination. Applied to inconspicuous blossoms which are self-pollinated before the bud opens, as in stemless violets. Such plants bear other more showy blossoms, which are often fruitful.

*Corolla*.—The flower-leaves standing next within and above the calyx.

*Corymb*.—A cluster of flowers, flat or convex at top, blossoming first at the circumference, last at the center.

*Crenate*.—With roundish teeth.

*Cyme*.—A cluster of flowers, flat or convex at top, the central ones blossoming first; those around the margin last.

*Cymose*.—With the general inflorescence of the cyme.

*Dehiscent*.—Splitting open of capsules into regular valves, for the discharge of seeds. Dehiscent fruits contain more than one seed.

*Disk or disc*.—The central part of Composites, as distinguished from ray-flowers.

*Drupe*.—A stone-fruit, as the cherry and plum.

*Filament*.—The stamen-stalk bearing the anther. It is not an essential part of the flower.

*Floret*.—Diminutive of flower. Applied to the small flowers of Composites.

*Glabrous*.—Smooth, without hairs or bristles.

*Inflorescence*.—Flowering; having reference to method, and, where there are several flowers, their relation to one another on the stem.

*Involucel*.—When an umbel of flowers is compound, the bracts underneath the secondary umbels are called involucels.

*Involucre*.—Leaves, sometimes petal-like, as in flowering dogwood, surrounding a single flower or a group of small flowers. Generally bract-like and green, as in the parsley family.

*Keel*.—Applied to the two united petals in the front part of such flowers as those of the pea and bean.

*Leaflet*.—When a leaf is cut down to the midrib it is a compound leaf, and each division is a leaflet. Such a compound leaf is that of the common locust.

*Legume*.—The fruit of the pea and bean family, usually opening along both sutures or seams.

*Lip*.—The upper petal of orchids. Also applied to each division of 2-divided flowers, as mints or figworts.

*Lyrate*.—Lyre-shaped. Leaves cut, with a large central, terminal lobe, and smaller ones along the side, as in some mustards.

*Midrib*.—The central, large vein of a leaf.

## HARPER'S GUIDE TO WILD FLOWERS

*Ovate*.—Egg-shaped. Broader above, tapering below.

*Palmate*.—Leaves spreading from the tip of a common stalk.

*Panicle*.—A compound flower-cluster, irregularly branching. Grasses and lilies of the valley are examples.

*Papilionaceous* (corolla).—The peculiarly shaped flowers of the Pulse family, having standard, wings, and keel.

*Pappus*.—The calyx of Composites; the down of thistles and dandelions.

*Pedicel*.—The stalk of each flower of a cluster of flowers.

*Peduncle*.—The naked stalk of a flower. When flowers are clustered, their common stalk is the common peduncle.

*Perianth*.—The floral envelope (sepals and petals) taken collectively.

*Petal*.—A division of the corolla.

*Petiole*.—The foot-stalk of a leaf.

*Pinnate* leaves are compound leaves in which the leaflets are arranged on a common stalk, which answers to the midrib of a simple leaf.

*Pistil*.—The central, seed-bearing flower organ, including ovary, style, and stigma, the style not being an essential part.

*Placenta*.—That part of the ovary which bears ovules or seeds.

*Raceme*.—Numerous flowers on separate pedicels upon an elongated axis. Beneath each flower is, usually, a small bract.

*Rachis*.—The principal axis or stem in an elongated spike or cluster of flowers.

*Receptacle*.—The tip of the flower-stalk, upon which the floral parts are regularly arranged.

*Rootstock*.—A prostrate or underground stem, usually erect at apex, rooting at nodes or joints.

*Samara*.—A winged, indehiscent fruit, as of the maple.

*Scape*.—A flower-stalk arising from the root, without true leaves.

*Sepal*.—Division of the calyx.

*Serrate*.—Like the edge of a saw, teeth pointing forward.

*Serrulate*.—Finely toothed.

*Sessile*.—Sitting. Of a leaf or flower destitute of stalk.

*Spadix*.—A spike of flowers with a fleshy, long axis.

*Spatha*.—A large leaf-like bract, infolding a flower cluster or single flower.

*Spike*.—A form of inflorescence in which small flowers, sessile or nearly so, are crowded upon an elongated axis.

*Stamen*.—The pollen-bearing organ of the flower, standing next outside the pistil, consisting of anther and filament, the latter not always present.

*Standard*.—The posterior, large petal of the flower of the Pulse family, infolding the others in bud.

*Stem*.—The leaf-bearing part of a plant; erect, prostrate, or subterranean.

*Stipules*.—The appendages which sometimes grow on the opposite sides of a leaf, at the base of its petiole. Sometimes they sheathe the

## GLOSSARY OF BOTANICAL TERMS

stem, as in buckwheat. Sometimes, as in clover leaves, they extend along the leaf-stalk. Often they are like small leaves or bracts.

*Umbel*.—The kind of inflorescence which includes several flowers springing from the same point.

*Umbellet*.—Smaller, secondary umbels.

*Wings*.—The side-petals of the papilionaceous corollas.

## CHAPTER III

### GREEN, GREENISH, GREENISH YELLOW

#### Arrow Grass

*Triglochin maritima*.—Family, Arrow Grass. *Flowers*: The *perianth* consists of 3 *sepals* and 3 *petals*, all alike in size and color. In front of each a large, sessile *anther* stands. *Pistils* 6, united into a compound pistil. The fruit splits, when ripe, into 6 *carpels*. The small flowers form a terminal, long *raceme*, or *spike*, the stalk or leafless *scape* springing from the root. *Leaves* narrow, fleshy, growing from the base of the flower-stalk which they clasp.

Salt marshes along the coast and in fresh bogs inland.

#### Indian Turnip. Jack-in-the-Pulpit

*Arisaëma triphyllum*.—Family, Arum. *Color*, green. *Leaves*, generally 2, on long petioles, divided above into 3 ovate, pointed, stort-stalked, wavy-margined leaflets. April to June.

The first name is derived from the bulbous root, which is like a miniature turnip. Boiled, this root is rendered edible. The plant is more generally known as a “Jack-in-the-pulpit,” the Jack being a *spadix* bearing stamens and pistils, without perianth, covered by a single folding leaf—a *spathe* which overtops the flower with a graceful curve, like the roofed pulpits of some cathedrals. Our Jack is a welcome preacher, and his text is, “Lo! the winter is past; the flowers appear on the earth.” He stands with his fellows in sentinel-like rows along the edges of deep woods or in the lighter-leaved forests. Often the overlapping spathe is prettily striped with purple and white. The fruit is a gay cluster of scarlet berries, ripe in June or July.

#### Green Dragon Root

*A. Dracónium* is a species in which the Jack grows taller than his pulpit, and the single leaf is divided into 5 to 17 leaflets, all springing from a common center. The leaf, on a long petiole,

## GREEN GROUP

grows taller than the flower, the divisions being long and narrow. The spadix tapers above into a long, narrow tip. The spathe, whitish or greenish, is long, narrow, acutely pointed. Stamine and pistillate flowers in different plants. Berries reddish orange, appearing in late summer.

Both species are found in all the Atlantic States.

### Green Arrow Arum

*Peltandra virginica*.—Family, Arum. Leaves, arrow-shaped, large, the largest  $2\frac{1}{2}$  feet long, the lobes at base long and sharp, margins rolled inward, long petioled. May and June.

A common plant, growing in shallow water or in bogs. The flowers are without calyx and corolla, being a collection of stamens and ovaries crowded on a long spadix, covering it nearly to the top. The leaf forming the spathe is long, 4 to 8 inches, tapering, curving, closely infolding the spadix, fleshy at base. Fruit, a green berry. Plant springing from tufted fibrous roots, the flowering scape but little shorter than the leaves. Maine to Florida and westward.

### Skunk Cabbage

*Symplocarpus foetidus*.—Family, Arum. Color of spathe, green, striped with purple and yellow. Leaves, large, broad, ribbed, heart-shaped. March and April.

This coarse and singular plant, with its ill odor, is yet of interest because it has the reputation of being the earliest bloom of spring. In March you may look for the singular, lumpy flowers which precede the big, coarse leaves. The flowers crowd and cover a thick, fleshy spadix, which becomes green and purplish, long-stalked. The enveloping spathe is large, broad, at first completely covering the spadix; afterward, as the fruit matures, decaying and falling off. The fruit itself is a singular, repellent-looking mass, being the spadix enlarged, soft, spongy, with the seeds formed underneath the epidermis. Later these drop to the ground like small bulbs.

The plant leaves are clustered at the root. They are from 1 to 2 feet long, and nearly as broad.

Notwithstanding the skunk and garlic combination of odor which this plant possesses, and which often permeates the atmosphere around, insects, including flies, buzz and hum over the flowers with seeming pleasure. Small insects

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are often caught and drowned in the accumulation of rain-water within the channels of the leaf-stalks.

### Sweet Flag

*Ácorus Cálamus*.—Family, Arum. The flowers are borne on a spadix which emerges from one side of a leaf-like scape. They consist of stamens and pistils, with 6 sepals. The scape is much prolonged beyond the flowers, and answers to the spathe in our Jack-in-the-pulpit. *Leaves*, ribbon-like, sharp on both edges. May and June.

Every boy knows that sweet flag root is good to eat, especially when boiled, cut in slices, and dried in sugar. It is the creeping rootstock which is edible.

### Duckweed

*Spirodéla polyrhiza*.—Family, Duckweed. *Flowers* seldom seen. *Leaves* and whole plant very small, floating free on water without stems and true leaves, the latter being loosely cellular bodies, two or three together, dark green above, sometimes purplish beneath.

This family comprises our smallest flowering plants. The tiny growths cover the top of the water at the time of their vegetating, in spring and summer. Each flower consists of a single stamen or pistil, springing from the edge or upper surface of the plant. In nearly all our pools and ponds.

### Ivy-leaved Duckweed

*Lémná trisúlca*.—Family, Duckweed. The *leaf* (here called a *frond*) has a little cleft in its margin from which the small flowers spring. Generally there are three flowers, two of them consisting of a stamen only, one of a pistil only. The fronds taper to a point, and often several are connected in a sort of chain. Common in shallow ponds, ditches, and springs.

### Bunch-flower

*Melánthium virginícum*.—Family, Lily. *Flowers* crowded or bunched at the end of a tall, unbranched, leafy stem. They form a large panicle of which the lower flowers are staminate, the upper pistillate. The 6 divisions of the perianth are raised on *claws*, at the summit of which is a large double gland. After blossoming the flowers become brownish. *Leaves*, narrow and grass-like, the lower ones clasping the stem, often a foot long, growing small toward the top. June to August.

Wet meadows and woods, beside banks of streams, from New England to Florida and Texas.

## GREEN GROUP

### White Hellebore. Indian Poke

*Veratrum viride*.—Family, Lily. *Flowers* rather large, in a long, dense panicle (from 1 to 2 feet long). *Perianth* of 6 divisons, narrowed at the base. *Stamens* 6, their filaments curved. Each flower is pedicelled, and lies flat and open. *Leaves*, broad, parallel-veined, plaited, clasping the stem at their bases.

A plant of rank, strong growth, from very poisonous, fibrous roots, found in wet places in New Jersey and southward, also 4,000 feet high in the Adirondacks.

### Field Garlic. Crow Garlic

*Allium vineale*.—Family, Lily. *Perianth* of 6 distinct, colored sepals. *Flowers* in umbels, often accompanied or displaced by small bubbles, tipped with a fine hair. *Leaves*, narrow, hollow, long, somewhat grooved, sheathing the flower-stem below and as far as the middle. *Scape* leafless above. *Root*, a coated bulb; like an onion.

Whole plant strong-scented. 2 to 3 feet tall. *Flowers* sometimes purple.

### Rein Orchis

*Habenaria flava*.—Family, Orchis. (See description of the Family, p. 6.) This species may be recognized by its square, cut-off *lip* (truncate) and long spur. Near the base of the lip is a small protuberance, called a tubercle. Where the lip is joined to the flower it has two arrow-like lobes. *Flowers* arranged in bracted spikes. *Leaves* on the stem, the lower broader than the upper, all pointed at apex. 1 to 2 feet high. June and July.

Common in wet grounds in the Atlantic States.

### Tall, Leafy Green Orchis

*H. hyperborea*.—This species has a leafy stem on which the flowers extend, sometimes below the middle, in a long, thick, or loose spike. *Lip*, narrow, lance-shaped. *Spur*, about equal in length to the lip. May to August.

Height about 2 feet. In peat bogs and damp woods, north and westward. Found 4,000 feet high in Vermont.

### Small, Northern Bog Orchis

*H. obtusata*.—This is a one-leaved species, the *leaf*, from the root, somewhat broad. *Flowers* make a loose raceme at the top of the naked stalk. *Lip*, lance-shaped, often turning back. *Spur*, curved, as long as the lip. July to September.

In swamps and damp woods, preferring rich soil.

## HARPER'S GUIDE TO WILD FLOWERS

### Ragged Fringed Orchis

*H. lacera*.—*Flowers*, numerous, in a loose or dense raceme. *Lip*, 3-parted, each of the divisions conspicuously fringed or cut into narrow segments. *Spur*, quite long. *Leaves* on the stem, broader below, becoming lance-shaped at the top. They are firm, with veins strongly marked. *Stem*, 1 to 2 feet high. Swamps and moist woods. June and July.

This green orchis is a pretty find, in early summer, in the woods.

### Adder's Mouth

*Microstýlis monophýllos*.—*Family*, Orchis. *Flowers*, small, with narrow petals. *Lip*, eared (not fringed), slender, terminating in a long point, roundish near the flower. *Flowers*, in a raceme, each with a short pedicel. June and July.

A single, rather broad leaf inwraps the base of the stem, which arises from a solid bulb. 5 to 6 inches high. Swamps or wet woods.

### Green Adder's Mouth

*M. unifólia*.—This species is similar to the last, but its *leaf* occurs about the middle of the flower-stem, oval or roundish, clasping. *Raceme* of flowers short, blunt, 1 to 3 inches long. *Lip*, 3-lobed at the summit. 5 to 10 inches high. July and August.

Rather rare, in wet woods.

### Twayblade

*Líparis Loesélíi*.—*Family*, Orchis. *Color*, yellowish green. *Flowers*, few in a raceme, the *petals* narrow, long. *Lip*, entire, pointed in the middle, oblong. *Leaves*, lance-shaped, 2 in number, sheathing the flower-stem.

Not a common species, found in wet woods, from New England to Florida.

### Crane Fly Orchis

*Tipulária discolor*.—*Family*, Orchis. *Color*, greenish, tinged or spotted with purple. *Flowers* on a scape, with several small scales at base, nodding, on pedicels without bracts, making a terminal, loose raceme 5 to 10 inches long. *Sepals* and *petals*, long and narrow, the lip 3-lobed, not exceeding the petals, prolonged backward into a thread-like spur twice as long as the flower. *Leaf* appearing in autumn, after the flower has perished, springing from a bulb, often living through the winter, long-

## GREEN GROUP

petioled, broad, acute, plaited, tinged with purple underneath. July and August.

Bulbs connected by horizontal offsets. This singular orchid, with its insect-like form, is a rare and pleasurable find in the woods from Vermont to Michigan, and southward to Florida and Louisiana.

### Stinging Nettle

*Urtica dioica*.—Family, Nettle. *Flowers*, in spikes. *Stamens* and *sepals* 4, in pairs; the two outer sepals smaller, all placed around a rudimentary pistil. *Leaves*, opposite, ovate, heart-shaped, downy underneath. Summer.

The whole plant is furnished with stinging hairs. A small gland, secreting a poisonous fluid, is at the base of each hair. If one be touched, never so lightly, I can testify from experience that the hand will burn and sting for hours afterward. Height, 2 or 3 feet. Common around old outbuildings and barns, and in waste places generally.

Two other species may be mentioned; neither of them quite so vicious.

### Slender Nettle

*U. gracilis* is sparingly bristly, quite tall, 2 to 7 feet, with *leaves* lance-shaped, possessing heart-shaped or round bases, deeply serrate, on tall petioles. *Flowers* in axillary compound panicles.

### Small Nettle

*U. urens* is small and coarse, provided with few stings. *Leaves* deeply and sharply toothed, ovate, petioled, 3 to 5-nerved.

To this Family belong our splendid elm trees; also, the fig and banyan, as well as the hemp plant. These species of nettle are found over the entire Atlantic coast.

### Wood Nettle

*Laportea canadensis*.—Family, Nettle. Stamine and pistillate *flowers* separate. No *corolla*. *Calyx* of 4 sepals, one or two of which are smaller than the others. One side of the *stigma* hairy. *Flowers* clustered in cymose heads. *Leaves*, 5 or 6 inches long, ovate, pointed, long-petioled, feather-veined, with one 2-cleft stipule at base. July to September.

A plant with stinging hairs, 2 or 3 feet high. Found in rich woods, northward and southward.

## HARPER'S GUIDE TO WILD FLOWERS

### Richweed. Clearweed

*Pilea pumila*.—Family, Nettle. Flowers of two kinds, staminate and pistillate. Corolla wanting. Sepals 3, a hooded scale in front of each. In the pistillate flowers, one large sepal incloses the seed, an achene, in fruit. From the resemblance of this sepal to a cap, the name is derived (pileus, a cap). Leaves, pointed, 3-ribbed, coarsely toothed. Stem smooth, 3 to 18 inches high. July to September.

Cool, moist, shady places.

### Great Water Dock

*Rumex Britannica*.—Family, Buckwheat. Flowers, lacking corolla, consist of 6 sepals, 6 stamens, and 3 styles. The 3 inner sepals, called valves, bear each a grain-like body upon the back. They are larger than the 3 outer ones, and are often colored, petal-like. The 3 outer are leaf-like and green. Flowers borne upon slender pedicels, forming a long, green panicle. Leaves, oblong, or lance-shaped, very large, those near the root 1 or 2 feet long, their petioles sheathing the stem at the base. Stems coarse, tall, 5 to 10 feet, sometimes measuring 10 inches around at base. Summer.

Wet places everywhere, especially borders of streams.

### Pale Dock

*R. altissimus*.—A species 3 to 6 feet tall, with long, pale green leaves, flowers on short, nodding peduncles. Common in alluvial soil.

### White Dock

*R. pallidus*.—This has a white root, whence its common name. It grows 1 to 3 feet high, with narrow, smooth leaves, the stem thickly branched, coarse in its growth, like most of this genus.

### Yellow Dock

*R. crispus*.—This is a well-known weed, growing with pertinacity in cultivated grounds, with a strong root. The farmers consider the dockweed among their most unwelcome growths. Leaves, narrow, with wavy margins. Flowers crowded in whorls, in long panicles.

### Swamp Dock

*R. verticillatus*.—A tall species found in swamps, with flowers whorled about the stem in loose, almost leafless racemes. Often the lower leaves of many of these species turn a bright red early in the season.

### Bitter Dock

*R. obtusifolius* has flowers whorled in looser, more distant panicles. Lower leaves ovate, heart-shaped, obtuse, the upper

## GREEN GROUP

narrower, acute. *Calyx* wings spiny-toothed; achenes smooth, red.

### Smaller Green Dock

*R. conglomeratus* has a leafy panicle of pedicelled, small flowers. *Leaves* petioled, oblong to lance-shaped, acute, 1 to 5 inches long.

### Golden Dock

*R. persicarioides*.—The flowers of this species are densely whorled in a long panicle. The *valves* have 2 or 3 pointed, long bristles on each side. The "grain" becomes golden in color. *Stem* stout, 1 to 3 feet high, sometimes creeping, very leafy. A maritime plant, found also in the interior.

### Knotweed. Doorweed

*Polygonum aviculare*.—Family, Buckwheat. *Leaves*, small, sessile, blue-green, less than 1 inch long, narrow. *Sheaths* silvery, membranous. *Corolla*, none. *Calyx*, green, bordered with pink. *Flowers*, very small, in axillary clusters. Summer.

There is a puzzling variety among the species of this genus, some of which are common weeds; others, rarer, aspire to prettiness. Many of them frequent wet places and are found along roadsides. This one is smooth, much jointed, prostrate, slender. Very common.

### Erect Knotweed

*P. erectum* is stouter, erect, 2 feet or less tall, with broader leaves. There is a yellowish tint to the flowers and stem by which it may be known. *Flowers*, 1 or 2 in the leaf axils. *Leaves* jointed to the *sheaths*, which are the distinguishing mark of the buckwheat family.

This and the preceding are quite common weeds.

### Common Smartweed. Water Pepper

*P. hydropiper*.—Of rather low growth, with smooth, dotted, narrow *leaves* very peppery to the taste. *Flowers*, in dense, nodding spikes, with numerous small bracts. The *sheaths* are fringed along their edges. *Stamens*, 6. Summer.

8 inches to 2 feet high. Wet grounds.

*P. virginianum*.—*Corolla*, none. *Calyx*, 4-parted, the divisions unequal. *Stamens* 5, styles 2. *Flowers*, in long, loose spikes, 1 to 3 from a single bract. *Stem*, smooth, 2 to 4 feet high.

Perennials. Found in thickets or moist woods.

## HARPER'S GUIDE TO WILD FLOWERS

### Black Bindweed

*P. Convolvulus*.—This is a prostrate or twining species, with halberd or heart-shaped leaves, a rough stem, and greenish flowers in loose, irregular axillary clusters. A common weed in cultivated or waste grounds.

### Pigweed. Lamb's Quarters

*Chenopodium album*.—Family, Goosefoot. Every one knows the pigweed, and wishes it were not so common. The green flowers grow in dense, spiked clusters, the *calyx* covering the seed in fruit. No *corolla*. The *leaves* are narrow above, broader below, angularly toothed.

The farmer's wife boils the tender tops of this weed, not knowing that the plant is nearly related to her garden spinach and beets. As the plant grows older it becomes white and mealy.

### Orach

*Atriplex patula*.—Family, Goosefoot. *Flowers*, of two sorts, the staminate with a 3 to 5-parted calyx; the pistillate with 2 large bractlets underneath, united at their bases. *Spikes*, slender, and sometimes the two kinds of flowers may be found together. *Leaves*, alternate or opposite, long and narrow, especially at the top, those lower down 3-cut or lobed; the upper sessile; the lower with petioles. *Stem*, mealy. Summer and autumn.

Homely, weed-like annuals, found in saline soil along our coast. Var. *hastata* has broadly arrow-shaped leaves, irregularly and coarsely toothed. Found also along the Great Lakes.

### Sea Beach Atriplex

*A. arenaria* is 6 to 18 inches high, slender-stemmed, erect or somewhat prostrate; with short petioles or sessile, oblong or linear *leaves*, rounded or pointed at apex, the flowers in clusters in the axils. Whole plant pale green, silvery-scurfy.

### Glasswort. Samphire

*Salicornia mucronata*.—Family, Goosefoot. No *leaves*, but *stem* fleshy, jointed, and the whole plant becomes reddish with age.

There are many coarse, uninteresting, weed-like plants along the seashore. Those which belong to the Goosefoot Family have little beauty of form or color, being devoid of a *corolla*. This one is low, fleshy, with a thick spike of flowers in groups of threes, the middle one higher than the side flowers, all sunk in hollows in the axils of the upper scales.

## GREEN GROUP

The small calyx is inflated like a bladder, irregularly toothed along the margin. In salt marshes.

### Marsh Samphire

*S. europaea*.—This species branches more freely than the last, and turns bright red in fall. Of the three flowers formed at the joints, the middle one is much higher than the others. Salt marshes along the coast.

*S. ambigua* bears greenish flowers in clusters of threes, in a short spike, springing from broadly ovate scales, the three flowers being nearly equal in height. This is a perennial.

### Sea Blite

*Suaeda linearis*.—Family, Goosefoot. No corolla. The fleshy calyx incloses the fruit. Flowers grow in the axils of leafy bracts. Leaves, long, narrow, rush-like. September to November.

The plant lies upon the ground, or it may be erect. The slender branches are mostly erect. Seashore.

### Russian Thistle

*Salsola kali*, var. *tenuifolia*.—Family, Goosefoot. Color of leaves and outer branches, red. Leaves, rigid, needle-like, tipped with a prickle, clustered, long, somewhat fleshy. Calyx, 5-parted, each division with a broad, strongly-veined wing, which incloses the fruit. Stamens, 5, styles, 2. Flowers in axils of the leaves.

Plant branched, bushy, an importation from Europe or Asia, and a pernicious weed in New Jersey and northward.

### Green Amaranth. Pigweed

*Amaranthus retroflexus*.—Family, Amaranth. Corolla, wanting. Sepals, 5, tipped with a point. Stamens, 5, awl-shaped. Stigmas, 2 or 3. Bracts, 3, awl-pointed, under the flowers, which are collected in dense axillary and terminal spikes. Leaves, ovate, or the upper lance-shaped, pointed, long-petioled. August to September.

Coarse, ugly annuals, growing as weeds in cultivated grounds.

### Thorny Amaranth

*A. spinosus*.—This is a weed more troublesome southward. Stamine and pistillate flowers on the same plant. A pair of rigid spines occurs in the axils of the leaves, where also the fertile flowers may be found. The sterile flowers form long, slender spikes above on the branches. Stem, reddish, 1 to 4 feet high.

Waste grounds near the coast.

## HARPER'S GUIDE TO WILD FLOWERS

### Tumbleweed

*A. graecizans*.—This species has pale green to whitish erect stems, with slender branches. *Flowers* in small, axillary clusters. *Stamens and sepals*, 3.

This weed is often uprooted by the wind and blown about, whence the common name.

### Early Meadow Rue

*Thalictrum dioicum*.—*Family*, Crowfoot. *Color*, greenish or purplish. *Flowers*, dioecious (on different plants), no *corolla*. *Calyx* of 4 or 5 sepals, falling early. The *stamens* have linear, bright-yellow anthers, drooping and trembling on hair-like filaments. *Flowers*, small, in panicles, not conspicuous among the pale, delicate traceries of the leaves. *Leaves*, compound, the leaflets stalked, rounded, drooping, 3 to 7-lobed.

The sepals give a greenish or purplish color to the flowers. Height, 1 or 2 feet. Earlier than the tall meadow rue, and growing more in the woods.

### Thimbleweed

*Anemone virginiana*.—*Family*, Crowfoot.—*Petals*, none. There are 5 greenish *sepals*, silky and downy underneath. *Fruit*, an oblong head of achenes, thimble-shaped. One of our tall anemones, 2 to 3 feet high, stiff and rather ungraceful; common in many of our woods. *Leaves*, radical and on the stem, the latter forming an involucre of 3-stalked, twice-divided leaves, their divisions cleft. From this whorl of leaves the earlier blossoms arise on tall, naked stalks. Later ones are accompanied by a similar smaller pair of leaves. Summer.

### Blue Cohosh. Pappoose Root

*Caulophyllum thalictroides*.—*Family*, Barberry. *Color*, yellowish green. *Sepals*, *petals*, and *stamens*, 6. *Pistil*, 1, with a short style. *Petals*, small, thickish, with short claws, opposite the sepals. *Flowers*, in a small panicle, terminating the simple stem. *Fruit*, a pair of round seeds on thick stalks, which by expansion burst the ovary covering, become naked, drupe-like, blue and somewhat fleshy, when ripe. *Leaf* 1, large, 3-divided, the divisions 3-lobed, situated just below the flower, sessile, so that the flower-stem seems to be the leaf-stalk. A second, smaller leaf sometimes appears. April and May.

A conspicuous plant, especially when in fruit, loving the solitude of deep woods, growing in rich soil.

## GREEN GROUP

### Dyer's Weed or Weld. Wild Mignonette

*Resèda Lutèola* (from *resedo*, to calm, it being supposed to possess sedative properties).—Family, Mignonette. *Color*, dull, greenish yellow. *Calyx*, 4-parted. *Corolla* of 4 petals. The upper one 3 to 5 times cut, the 2 side-petals 3-divided, the lower one entire. *Stamens* numerous on a fleshy disk. The small *flowers* grow in long, narrow, stiff spikes. *Leaves*, alternate, lance-shaped, with glands in place of stipules.

A roadside plant, but not very common. Height, 2 feet. Used for dyeing yellow. The fragrant mignonette of our gardens is *reseda odorata*.

### Ditch Stonecrop

*Pénthorum sedoides*.—Family, Orpine. *Color*, greenish or greenish yellow, found in sepals. No *petals*. *Stamens*, 10. *Pistils*, 5, joined below in a queer little capsule which has 5 horns. The capsule opens by the falling-off of these horns. *Flowers* grow on the upper side of a leafless stem, the terminal blossoming first. *Leaves*, scattered, lance-shaped, pointed, not fleshy as in many members of this family.  $\frac{1}{2}$  to 2 feet high. July to October.

Wet grounds, as river-banks or borders of brooks. (See illustration, p. 32.)

### Pigmy Weed

*Tillaèa aquática*.—Family, Orpine. A symmetrical flower, with *petals*, *sepals*, *stamens*, and *pistils*, 3 or 4. *Color*, greenish white. *Leaves*, those on the stem, opposite; those at the root, entire, clustered, fleshy. July to September.

A queer, little, mud-loving plant. The tiny, 2-inch-high stem bears small, single flowers in the leaf axils. Local, near the coast, in brackish mud.

### Swamp Saxifrage

*Saxífraga pennsylvánica*. (Name means rock-breaker, from many species growing in clefts of rocks.)—Family, Saxifrage. *Flowers*, perfect, with 5 greenish *petals*, a 5-parted *calyx* with lobes recurved. *Stamens*, 10. *Styles*, 2. Flowers clustered in cymes or panicles. *Leaves* clustered at the root, rather large, 4 to 8 inches long, obscurely toothed, upon short, broad petioles. Those on stem smaller, alternate.

For this genus a rather large growth, 1 to 2 feet high. Common and not pretty, in low, wet meadows or swamps.



DITCH STONECROP IN FRUIT (*Penthorum sedoides*)  
(See page 31)

## GREEN GROUP

### Common Alum Root

*Heuchera americana*.—Family, Saxifrage. *Calyx*, tubular, 5-cleft, broad. *Petals*, 5, small, equaling the calyx divisions. *Stamens*, 5. *Styles*, 2. *Flowers* in small, panicled clusters, insignificant. *Leaves*, principally from a rootstock, roundish, crenately lobed and toothed, narrowed at base into flattened petioles. *Stem*, hairy, beset with small glands, 2 or 3 feet high.

Hills and rocky woods.

### Miterwort. Bishop's Cap

*Mitella nuda*.—Family, Saxifrage. *Calyx*, short, 5-cleft. *Corolla* of 5 slender petals. *Stamens*, 10. *Styles*, short, 2. *Leaves*, generally 2, from runners or a rootstock, roundish or kidney-shaped, with crenate outlines, small. May to July.

A few small flowers are borne on leafless, slender stems, low, often almost hidden in moss where it delights to grow. In cool woods.

### Golden Saxifrage

*Chrysosplenium americanum*.—Family, Saxifrage. Greenish, often tinged with yellow or purple. *Petals*, none. *Calyx*, with 4 or 5 lobes, green outside, yellowish within. *Stamens*, 8 or 10, on a large disk. *Styles*, 2. *Flowers*, small, single or in cymose, leafy clusters, on slender, reclining stems. *Leaves* mostly opposite, small, thickish, round, or heart-shaped, slightly lobed. April and May.

The name is misleading, for the predominant color of the flower is not yellow. Cold swamps or wet places.

### Three-seeded Mercury

*Acalypha virginica*.—Family, Spurge. *Flowers*, monoecious, the staminate and pistillate each with a *calyx* 3 to 5-parted. The staminate are small, almost minute, clustered in front of a small bract, in spikes. The pistillate, either singly or 2 or 3 together, grow in the axils of large, palmately-cleft, fruiting, leaf-like bracts. *Stamens*, 8 to 16, the anthers often being curved. *Styles*, 3, and the capsule is 3-seeded. *Leaves*, alternate, petioled, ovate or oblong, with stipules. July to September.

The plant is somewhat hairy, 18 to 20 inches high, turning reddish or purplish late in the season. It is a homely, nettle-like weed. In dry fields and open places, New England to Minnesota, southward to Florida.

### Wild Ipecac

*Euphorbia ipecacuanhae*.—Family, Spurge. It is difficult to enumerate the flowers of members of this family as of a particular

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color, for the distinctive color lies in large glands. (See description of flower of the Spurge Family, p. 9.) In this species the growth is low and slender, from a long, straight root. The numerous stems fork below the middle, bearing a pair of small, oblong, or linear nearly sessile leaves. Peduncles about an inch long.

Sometimes the whole plant has a reddish tinge. It may be found in the spring, common, in sandy soil along the coast from Connecticut to Florida.

### Seaside Spurge

*E. polygonifolia*.—This species grows in pure sand on the shore, its pinkish stems, with small, narrow, opposite leaves, slightly heart-shaped at base, acute at apex, with cut or fringed stipules, spreading carpet-like, on the ground. The roots pull lightly up. If a branch or single leaf is broken off, a thick, milky juice exudes from the wound. The flowers are small, greenish, appearing in July. 3 to 10 inches long.

The euphorbias are all poisonous. Nuttall says, "In the deserts of Africa they only tend, as it were, to augment the surrounding scenes of desolation; leafless, bitter, thorny, poisonous, they seem to deny food to every animated being."

### Cypress Spurge

*E. Cyparissias*.—This and the following species are often cultivated, and have escaped from gardens. The cypress spurge is low, 8 to 10 inches high, with flowers in spreading umbels, on closely crowded stems. Leaves, on the stem long, and narrow, those near the flowers somewhat heart-shaped.

Perennial plants from rootstocks. Rather common.

### Caper Spurge. Mole Plant

*E. Láthyrus*.—A smooth plant with stout stem, 2 to 3 feet high, with flowers in 4-rayed and forking umbels. Leaves, thick, oblong, those under the flowers often heart-shaped.

### Water Starwort

*Callitricha deflexa*.—Family, Water Starwort. (The generic name means "beautiful hair," from the numerous, slender stems). Leaves very small, crowded, in tufts. This plant is one of our tiniest growths. Slender stems with opposite leaves tufted at the root, 1 to 2 inches high, with sterile flowers consisting of a single stamen, and fertile ones consisting of a 4-celled ovary and 2 stigmas, tell the whole story.

Annuals, found in wet soil, from Connecticut to Delaware and westward.

## GREEN GROUP

### False Loosestrife

*Ludwigia sphaerocarpa.* (Specific name from the round capsule.) — *Flowers*, wanting *corolla*. *Sepals*, green. *Stamens*, 4. Small, sessile, single flowers occur in the leaf axils. *Leaves*, narrow, long, acute at both ends, alternate, slightly rough. *Runners* or *shoots* spring from the roots, covered thickly with small, broad leaves. *Stem*, erect, 2 to 3 feet high, its bark below often becoming thick and corky.

Aquatic, or in wet swamps. Massachusetts to Florida.

*L. polycarpa.* — This species differs from the last in having minute *petals* and conspicuous bractlets underneath the flower. The plant is from 1 to 3 feet high, with stout *stem*, and numerous *stolons*. The alternate *leaves* are rough along the margins, 2 to 4 inches long.

Swamps in Connecticut and Massachusetts, south to Kentucky, and in Kansas.

### Water Milfoil

*Myriophyllum verticillatum.* — Family, Water Milfoil. *Floral leaves* and *flowers* in whorls, the upper flowers staminate, the lower pistillate. *Petals*, generally none. *Sepals*, green, or with a purplish tinge. *Stamens*, 8. *Leaves*, cut and fine, like the teeth of a comb.

The plant is aquatic, and when the leaves are taken from the water they collapse. Such leaves are spoken of as *flaccid*.

The flowers are inconspicuous, sessile, in the axils of the leaves. The only acquaintance I have with this plant is through a specimen sent me from a friend in southern New Jersey. I placed my plant in a dish of water and kept it for weeks. Its finely dissected leaves grew very fast and overlapped the edges of the dish. Greenish white blossoms appeared in March.

There are several members of this Family which grow in ponds and shallow streams. They all have capillary leaves, usually whorled on the stem.

### • Mermaid Weed

*Proserpinaca palustris.* — Family, Water Milfoil. *Calyx*, tubular, 3-sided, its border 3-divided. *Petals*, none. *Stamens* and *stigmas*, 3. A nut-like *fruit* with 3 seeds in as many cells, is borne. *Flowers*, small, inconspicuous, 1 to 4, sessile, in the axils. *Leaves*,

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lance-shaped, alternate, sharply toothed; the lower, often under water, cut into comb-like divisions. *Stems*, low and creeping, 8 to 20 inches high.

Growing in shallow water or in the mud along its banks throughout the Atlantic coast and westward.

### Poke Milkweed

*Asclepias phytolaccoides*.—*Family*, Milkweed. *Color*, greenish; hoods white. (See description of this Family, p. 10.) *Leaves*, with short petioles, large, broad, ovate to roundish.

A tall, rank-growing species of milkweed, 3 to 5 feet high, with pedicelled flowers in terminal and lateral umbels. The horn projecting from the white hood has a long, somewhat curved point. *Stem*, 3 to 5 feet high. The flowers are loosely clustered, each on a limp, drooping pedicel, as long as the common peduncle. Deep, cool, moist woods. New England, south to Georgia and Alabama.

### Sweet-scented Bedstraw

*Gàlium triflorum*.—*Family*, Madder. The galiums all have rather slender, square stems, often roughened along the angles, so that they cling to other plants, and sprawl rather than climb. Their flowers and leaves are in whorls or clusters. In this species the *calyx* is tubular; *corolla*, 4-parted; *stamens*, 4; *styles*, 2; *fruit*, double, beset with hooked hairs for its dissemination. *Leaves*, 1 to 2 inches long, roughened along the edges, 4, 5, or 6 in a whorl. June and July.

This plant has a pleasant fragrance when dried. Common in rich woods along the coast and in the interior.

### Ragweed. Hogweed. Bitter-weed. Roman Wormwood

*Ambròsia artemisiifòlia*.—*Family*, Composite. *Leaves*, much cut and thin, opposite and alternate.

This unwelcome weed, when examined under the microscope, shows the fertile and sterile flowers in different heads on the same plant. The spikes of flowers above are staminate. Below, in the leaf-axils, are 3 pistillate flowers. Often the plant exhales rather a disagreeable odor. Its pollen is said to produce hay-fever. It has a strong, spreading root.

Mr. W. H. Gibson has found something curious and likable in this ugly weed. He says: "The pith obtained from the stem is lighter and more buoyant than any vegetable tissue of like bulk. It seems almost to float as it falls from your hand, while its cross-fracture, with its iridescent sheen, cer-

## GREEN GROUP

tainly brings reminders of the rainbow in the realms of the gods." Dr. Gray says the generic name *Ambrosia* "is ill-chosen for these worthless and coarse weeds."

Mr. Burroughs says: "Ambrosia, 'food for the gods'! It must be food for the gods, if anything, for, as far as I have observed, nothing terrestrial eats it, not even a billy-goat."

### Great Ragweed

*A. trifida*.—A very tall, coarse, and rough species, with 3-lobed, large leaves whose petioles are margined. A common and troublesome weed, especially westward.

## CHAPTER IV

WHITE, CREAM, GREENISH WHITE

### Cotton Grass

*Eriophorum angustifolium*.—Family, Sedge. Although possessing no ordinary flowers, the cotton grass is so striking in mid-summer, as it dots the swamps and cranberry marshes of Long Island and northward with pure white, cottony-looking balls, it seems worthy to lead the procession of white flowers.

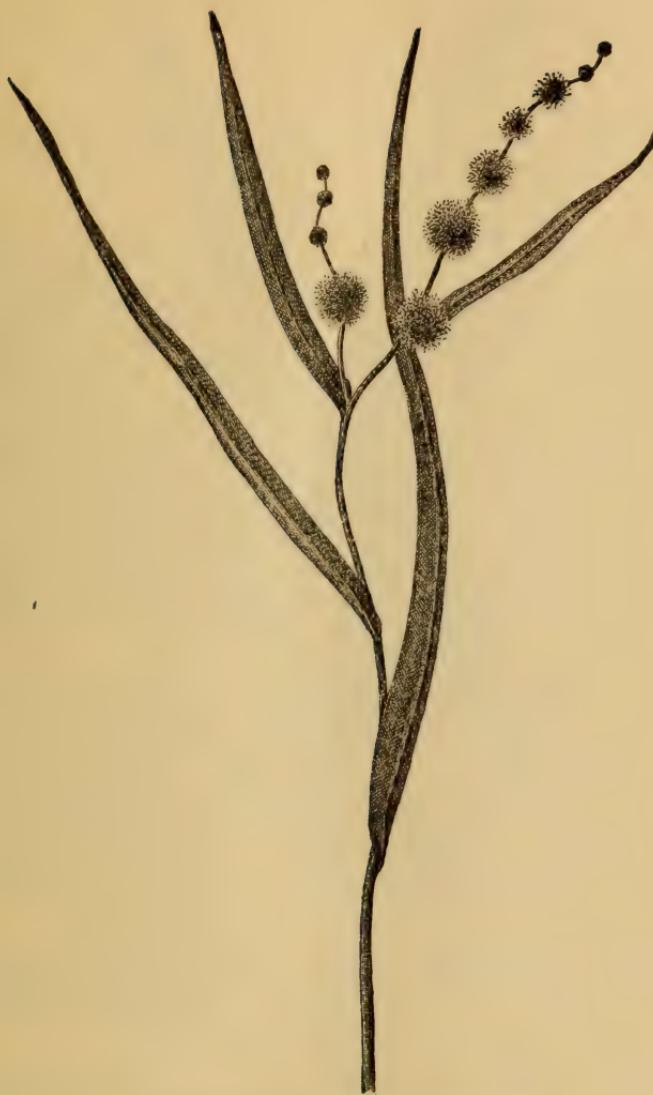
Grasses, sedges, and rushes have blossoms which, taken together, from their arrangement in little spikes, may be called *spikelets*. In this genus, 2 or 3 flowers spring from the axil of a scaly bract. The *spikelets* are grouped in terminal, drooping umbels. The underlying scales, at first gray, become brownish. The lower leaves are long, stiff, grass-like, clasping the stem. The upper are just sheaths, without blades. 1 to 3 *stamens*, and a 1-celled *ovary* compose the blossom, which, instead of calyx, produces many long slender, soft bristles, giving the cottony look to this sedge. There are several species, mostly from England, which brighten the moors of the mother-country.

Stems of the Sedge Family are solid (rushes and grasses are hollow or filled with pith), square, triangular, or flat.

### Bur-reed

*Sparganium simplex*.—Family, Bur-reed. *Flowers*, without perianth. *Stamens* and *pistils* separate, with bracts, collected in heads along the upper part of the stem. *Staminate flowers* above; *pistillate ones* below, from 1 to 4 in a head, consisting of several pistils with a calyx-like set of scales underneath. *Leaves*, long, narrow, flat, ribbon-like, sheathing at base, floating. July and August.

A rather strikingly pretty water plant, sometimes terrestrial, growing on the banks of streams. The fertile heads become bur-like in fruit. The heads are separated by a space on the stem. Perennials, springing from creeping, horizontal rootstocks. Aquatics. (See illustration, p. 39.)



BUR-REED (*Sparganium simplex*)  
(See page 38)

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*S. eurycárpum* is a stout and tall species, with characteristics similar to the last, growing along the shores of rivers and streams near the sea-level.

*S. míniúm* is slender and low, with grass-like leaves floating on the water near the bank, where it is shallow. As far south as Pennsylvania.

### Arrow-head

*Sagittaria latifolia*. (Sagitta, an arrow, from the shape of the leaves.)—Family, Water Plantain. *Flowers* in whorls of 2 or 3 about the leafless scape. The upper whorls are staminate, with 3 large, rounded white petals and numerous stamens. The lower one or two whorls are of smaller, inconspicuous, and fertile flowers, with 3 sepals. *Leaves*, on long petioles, strongly arrow-shaped, with deep, pointed lobes. *Stems*, smooth, with milky juice.

A familiar plant, noticeable quite as much for its handsome, dark-green, arrow-shaped leaves as for its pretty spike of broad, white blossoms. Sometimes it grows entirely in water. More often it stands upon the wet banks of slowly moving streams. There are many species and varieties of *Sagittaria*, marked by variability of leaves, some of which lose the arrow-shape and become long and narrow. (See illustration, p. 41.)

### Water Plantain

*Alisma Plantago-aquática*.—Family, Water Plantain. *Flowers*, small, in a compound, spreading panicle much higher than the leaves. *Color*, white, sometimes light pink. *Stamens* and *pistils* in different flowers. *Petals*, 3, white. *Sepals*, 3, with white margins. *Stamens*, 6. *Pistils*, several, in fruit forming a ring. *Leaves*, all from the root, resembling common plantain leaves, broad, with long petioles, smooth, many-veined, often heart-shaped at base, sheathing. *Roots*, fibrous, 6 inches to 2 feet high. July to September. Common in shallow water.

A plant growing sometimes in water, more often in mud on banks, and especially in the soft, boggy ground made by cows in their passing to and from water. (See illustration, p. 43.)

### Water-weed. Dutch Moss

*Elodèa canadénsis*.—Family, Frog's Bit. *Flowers*, of two kinds. *Staminate* very small, with 3 *sepals*, with or without 3 inner petal-like divisions of the *perianth*. *Stamens*, 3 to 9. *Stigmas*, 3. *Pistillate* flowers seldom seen. *Leaves*, opposite, whorled, or clus-



ARROW-HEAD (*Sagittaria latifolia*)  
(See page 40)

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tered along the stem, sessile, transparent, long, narrow, small. *Stem*, 4 inches to 3 feet long, according to the depth of the water. May to August. Aquatic.

A small, slender herb, growing its stems and leaves under water; but bringing its pistillate flowers to the surface by stretching the tube of the perianth till it reaches the top of the water. This tube is thin and thread-like. The staminate flowers break off early, scattering their pollen on the water around the stigmas of the pistillate flowers.

*Tape*, or *eel-grass* (*Valisnèria spirális*), belongs to this Family. Its ribbon-like leaves grow 6 feet long. It is common and well known.

### Wild Calla. Water Arum

*Cálla palústris*.—Family, Arum. *Color* of the spathe, white; berries, red. *Leaves*, broad, somewhat heart-shaped, on long, thick petioles. May and June.

The flower of this pretty aquatic is a close copy of the stately potted plant the calla lily. The true flowers appear—staminate above, pistillate below—on a fleshy receptacle, the *spadix*, which is short and thick. This lies against a broad, flattish, much pointed, pure white open leaf, the spathe.

No other leaf grows upon the flower-stem. Others, green, on long stalks, come up from the creeping rootstock.

These are common flowers in Lapland and other Northern countries, where they grow so numerously as to cover whole marshes and exclude other plants. The roots are caustic and acrid.

They are found from Nova Scotia to Virginia and westward.

### Pipewort

*Eriocaúlon articulátum*.—Family, Pipewort. *Color*, a leaden white. *Stamens* and *pistils* in different flowers, in the same head. Divisions of perianth, in staminate flowers, 2 or 3, narrow, bearded with fine, white hairs; in pistillate flowers, similar, with an inner set of smaller segments. *Stamens*, 4 to 6. The flowers are so small that their parts can only be made out with a magnifying-glass. A white, woolly beard abounds among them, and covers the base of the scape, which is long enough to bring the flower-heads to the water's surface, and so may be a few inches or several feet in length. The scape is angled with 4 to 7 lines,



WATER PLANTAIN (*Alisma Plantago-aquatica*)  
(See page 40)

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often twisted. *Leaves*, short, 1 to 3 inches long, smooth, loosely cellular, transparent, grass-like; none on the flower-stems.

This singular aquatic is not very common. In the ponds where it grows from August to October, under overhanging trees, the surface of the water will be dotted with the white flowers, and where the water is shallow the tips of the leaves can be seen. Its range is from Newfoundland to Texas. (See illustration, p. 45.)

### Mud Plantain

*Heteranthera reniformis*.—Family, Pickerel-weed. *Color*, white or pale blue. *Leaves*, kidney-shaped or heart-shaped, with long, sheathing petioles. A low, creeping-stemmed herb, with a spathe of few flowers, which perish in a day. The flower-tube is 6-divided. There are 3 stamens, 2 with yellow anthers, 1 with a greenish anther. A leaf at first covers the flowers, from the base of which, when ready to bloom, they emerge. Summer.

Connecticut to New Jersey and southward.

### Devil's Bit. Blazing Star

*Chamaelirium luteum*.—Family, Lily. *Stamens* and *pistils* on different plants. *Sepals*, 6, persistent after withering. Six *stamens* with white anthers. The fertile flowers contain only the rudiments of stamens. *Styles*, 3, long, club-shaped, stigmatic along one side. *Capsule* oblong, about  $\frac{1}{2}$  inch long, 3-lobed and 3-valved. *Leaves*, upper ones lance-shaped or linear, flat, sessile, or short-petioled; the lower broad at apex, obtuse, tapering into narrow petioles. May to July.

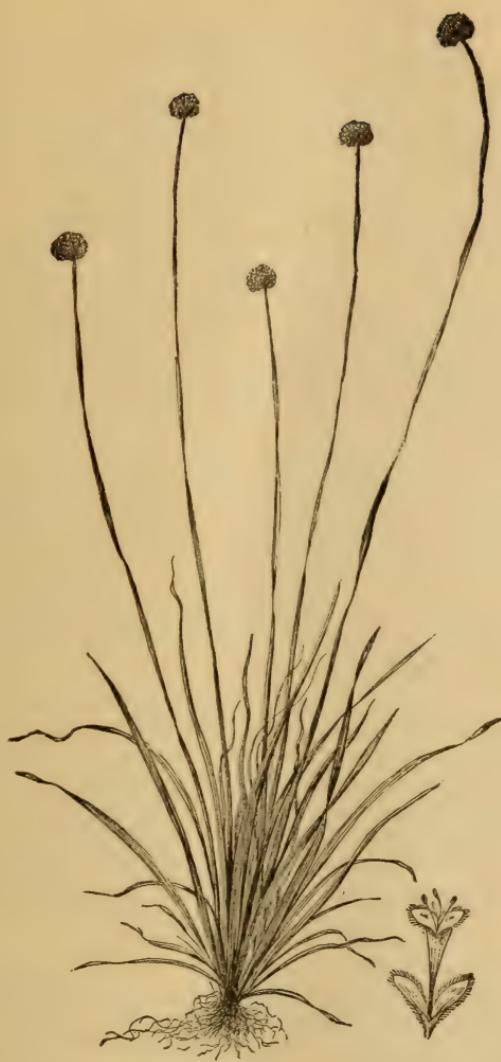
A long stem, 4 feet high or less, rises from a tuberous root-stock, bearing a bractless raceme several inches long, of small, feathery, white, staminate flowers. The raceme of pistillate flowers on a shorter stem is stiff and erect.

Massachusetts to Florida and westward.

### Fly Poison

*Amianthium muscaetoxicum*.—Family, Lily. *Perianth* of 6 white divisions which become greenish with age. They are spreading, conspicuous, making a simple, dense raceme. *Stamens*, with thread-like *filaments* as long as the *sepals*. *Fruit*, a 3-horned capsule. *Leaves*, from base of flower-stem, linear, grass-like, rather long, a few on the stem reduced to mere bracts. *Stem*, 18 inches to 4 feet high, from a coated bulb. June and July.

Open woods, with a wide range from Long Island westward to Pennsylvania, to Kentucky and Arkansas. Found among the mountains of Virginia.



PIPEWORT (*Eriocaulon articulatum*)  
(See pages 42, 44)

## HARPER'S GUIDE TO WILD FLOWERS

### Crisped Bunch-flower

*Melanthium latifolium*.—Family, Lily. Color, greenish white. Six spreading, clawed *sepals* and *petals* compose the perianth. *Stamens*, 6. *Styles*, 3. A tall and slender plant, 2 to 4 feet in height. *Flowers*, on pedicels in large terminal panicles. *Leaves*, long, narrow, acute at apex, narrowing to the base, the lower clasping, numerous on the tall stem. July and August.

In dry woods and among hills, ascending in the south to a height of 2,000 feet.

### Wild Leek

*Allium tricoccum*.—Family, Lily. Color, white or greenish. *Leaves*, long and narrow, disappearing before the flowers come.

From a coated bulb, the leaves appear early in spring, growing less than a foot high. Later, the flowers come in umbels, like those of the cultivated onion. July.

Wet woods and meadows. Unfortunately the familiar, onion-like smell belongs to the wild leek, which otherwise is not lacking in pretensions to beauty. New Brunswick to North Carolina and Tennessee.

### Wild Garlic

*A. canadense* grows from a single bulb to the height of a foot or more. Small bulbs often replace the pink or white flowers. Wet meadows. May and June.

### White Dog's-tooth Violet

*Erythronium albidum*.—Family, Lily. Perianth of 6 lily-like divisions, white with a tinge of pink, the *sepals* curled backward. *Stamens*, 6. *Style*, long and projecting, bearing 3 *stigmas*. *Flowers*, single, showy, nodding. A pair of opposite *leaves*, spotted or entirely green, springs from the flower-stem. April.

Deep, cool, moist woods. New Jersey westward and southward as far as Texas. Rare in the Eastern States.

### Star of Bethlehem

*Ornithogalum umbellatum* ("bird's milk," from color of flowers).—Family, Lily. *Leaves*, long, narrow, 1-ribbed, grass-like, fleshy, equal to or longer than the flower-stems. A pretty pure white flower, with 6 spreading *sepals*, opening in sunshine, green in the middle on the under side. *Flowers* pedicelled, each with a bract, clustered on the summit of the scape, 5 to 12 inches high. The *root* is a coated bulb. May and June.

Escaped from gardens, and found wild; quite common

## WHITE GROUP

from Massachusetts to Virginia, in grassy lawns, side by side with the grape hyacinth.

*O. nutans* has flowers in nodding racemes, with stout pedicels and narrow, pointed bracts. A garden species found wild in eastern Pennsylvania.

### White Clintonia

*Clintonia umbellulata*.—Family, Lily. Color, white, with purple or greenish dots. Flowers, fragrant, in a many-flowered umbel at the end of a scape 8 to 18 inches high. Fruit, a roundish, black berry. Leaves, 2 to 5, from the root, broad, pointed, parallel-veined, hairy around the margins and sometimes along the midrib underneath, their petioles sheathing the base of the scape; sometimes a small leaf on the scape. May and June.

Deep, cool, moist woods. New York to Georgia and Tennessee. On the mountains in Virginia.

### False Spikenard

*Smilacina racemosa*.—Family, Lily. The small flowers cluster in terminal panicles. Perianth, 6-divided. Stamens, 6. Leaves, 3 to 6 inches long, alternate, clasping, or the lower with petioles, broad, acute at apex, parallel-veined, with minutely hairy margins. May to July.

In moist woods from Nova Scotia to Georgia and westward.

A familiar plant, blossoming about the last of May, in cool woods and on hillsides, often in moist ground. The single ascending stem, producing rather large leaves, rises straight or zigzag to a height of 2 to 3 feet, and bears on its tip a compound panicle of fine, white, pedicelled blossoms, slightly fragrant. In fall these flowers give rise to a lovely bunch of pale-crimson, purple-dotted berries.

Many call this, wrongly, Solomon's Seal.

### False Solomon's Seal

*S. stellata*.—This is a smaller species than the last, 1 foot high, growing under similar conditions. The flowers, in a terminal, simple raceme, are larger than the last, and fewer, each with a distinct pedicel. Most of the leaves clasp the stem, without petioles. Flowers appear about the middle of May, and the berries in September are a purplish black or green with black stripes.

Both of these plants grow from a creeping rootstock, like the true Solomon's Seal, and they are among our interesting

## HARPER'S GUIDE TO WILD FLOWERS

friends of the woods. New England to Virginia and Kentucky. Often found growing with the preceding.

### Three-leaved Solomon's Seal

*S. trifolia* rises from a slender rootstock, a stem 6 to 18 inches high, bearing, generally, 3 oblong leaves, sessile, and sheathing at base. Flower rather large, with an open, at length reflexed, 6-divided perianth, 6 stamens, 1 ovary, and style. Berries, dark red.

In wet, boggy woods from Maine to Pennsylvania, westward to Michigan.

### False Lily of the Valley

*Maiánthemum canadénse*.—Family, Lily. Color, white. Perianth of 4 sepals. Stamens, 4. Leaves, 1 to 3, one above the other, on flowering stems, ovate to oblong, pointed at apex, heart-shaped at base, with short, thick petioles, or sessile. Some solitary on longer petioles from the rootstocks. Parallel-veined. Flowers, small, delicate, with a 4-divided perianth, 4 stamens, 1 style, in a terminal spike or cluster, followed in the fall by a bunch of bright-red berries. May and June.

This small lily of the valley is one of the flowers dear to children, who love to press their little fingers into a bed of the shining leaves, mixed with mosses, looking for the downy, fine blossoms. Height, 4 to 7 inches. Stem often bent. In moist woods from New England to North Carolina and westward. (See illustration, p. 49.)

### Twisted-stalk

*Stréptopus amplexifòlius*.—Family, Lily. (Name means "twisted foot or stalk.") Perianth of 6 divisions, bell-shaped, curved backward, all narrow, pointed, greenish white. Stamens, 6, with arrow-shaped anthers on short, flattened filaments. Fruit, a red, many-seeded berry. The flowers,  $\frac{1}{2}$  inch long, grow from the leaf-axils on slender peduncles 1 to 2 inches long, which are abruptly bent or twisted in the middle; hence the name. Stem, a creeping rootstock, from which the branches arise, 2 to 3 feet in height, forking, bearing the nodding flowers near the ends. Leaves, thin, pointed, rounded at base, clasping the stem. May to July.

Cool, wet woods, northward, and south in the mountains of North Carolina.

### Large-flowered Wake Robin

*Trillium grandiflòrum*.—Family, Lily. Perianth of 3 long and narrow, green sepals and 3 large colored petals, with marked

## WHITE GROUP



FALSE LILY OF THE VALLEY (*Maianthemum canadense*)  
(See page 48)

veins, obtuse and broad, or heart-shaped at the top. *Petals*, waxy, white, later turning pink. *Stamens*, 6, with long anthers on stout filaments. *Flowers*, single, on long peduncles, at the base of which there is a whorl of 3 broad, net-veined, strongly-ribbed leaves. *Fruit*, a black, roundish berry.

The trilliums are smooth, unbranched herbs, among our earliest spring finds, coming but little later than the robin from which this one takes its name. The name trillium means *three*, all of the parts of this plant being in threes.

## HARPER'S GUIDE TO WILD FLOWERS

### Painted Trillium

*T. undulatum*.—This is the most striking of the genus. *Flower*, peduncled, with 3 narrow sepals. Its long, white, wavy petals are colored a deep, rich crimson in the middle, or lined with purple, and the upper part of the stem is brown. *Fruit*, a 3-angled red berry, 3-celled, with several seeds in a cell. *Leaves*, tapering to a thick, broad petiole, with 3 prominent ribs running from base to the sharp-pointed apex. May and June.

Cold, moist woods, often found in bogs in the Northern States, and in the mountains southward. Found over 5,000 feet high in Virginia.

It is difficult to classify the trilliums by their color. They partake of bright hues in their petals, seeming to delight in strong, rich markings, often different colors being found together. (See under Variegated Flowers, p. 374.)

### Nodding Wake Robin

*T. cernuum* is white or pink, the *petals*, with wavy margins rolled back, as long as the *sepals*. *Anthers*, long, on stout filaments. *Fruit*, a crimson berry. *Flower*-stalk nods away from the involucle of three broad, acutely pointed leaves. April to June.

Moist woods, from Maine to Georgia, where it may be found in the mountains.

### Colic-root. Star Grass

*Áletris farinosa*.—Family, Lily. *Color*, white or yellowish. A plant with many small, bell-shaped flowers terminating a tall, leafless scape, 2 or 3 feet high, in a narrow raceme often nearly a foot long. One or 2 bracts, longer than the pedicels, lie under each flower. *Stamens*, 6, on short filaments. *Style*, 1, 3-divided at the top. *Leaves*, thin, pale greenish yellow, lance-shaped, clustered at the root. July and August.

A special mealy look about the flowers has given this plant its name, *aletris*, meaning a slave grinding corn. Along roadsides, on the edges of dry woods, in sandy soil, this plant grows from New England to Florida and in the mountains of Virginia.

### Showy Lady's Slipper

*Cypripedium hirsutum*.—Family, Orchis. *Color* of lip white, varied with deep-pink stripes. *Sepals*, white, broad, roundish, long. *Leaves*, large, dotted, numerous, pointed, ovate, with strongly defined veins. June to September.



WHITE FRINGED ORCHIS (*Habenaria blephariglottis*)  
(See page 52)

## HARPER'S GUIDE TO WILD FLOWERS

Swamps and wet woods, west to Minnesota and south to Georgia.

"The most beautiful of the genus." All the sepals and petals are white, except for the blush on the front of the broad, inflated, not twisted lip. Stem, downy, 2 feet high, from fibrous roots. It is not easy to find, being a shy thing, and hiding its beauty in peat-swamps, where, however, if once discovered, it may be seen to grow in numbers.

### White Fringed Orchis

*Habenaria blephariglottis*.—Family, Orchis. Color, white. Leaves, the lower ones lance-shaped, quite long; the upper, bract-like. July.

A beautiful milk-white orchid. The lip is variously cut and fringed, giving the whole spike of flowers a soft, lace-like appearance. The stem, smooth, with bracts rather than leaves above the middle, grows from 12 to 15 inches tall. The pure color of the heads of flowers makes them at once conspicuous in the swamps, cranberry marshes, etc., where they grow, often in great profusion. (See illustration, p. 51.)

*H. dilatata*.—This species has white, delicate flowers in a raceme. Lip, narrow and pointed, not fringed, hanging over a spur nearly as long. Leaves, on the stem, long, narrow. Stem, 1 to 2 feet high. May to August.

Wet woods and swamps, northward, as far south as New Jersey.

### Ladies' Tresses

*Spiranthes gracilis*.—Family, Orchis. Color, mainly white, but the lip is green, margined with white. Sepals, rather longer than the spreading, wavy, and crisp-margined lip. Flowers, small, in slender, twisted spikes, fragrant. Stem, simple, from 8 to 20 inches tall, smooth, with bracts below and among the flowers, from a cluster of long, tuberous roots. Leaves near the base of the simple stem, short-petioled, ovate to lance-shaped, generally perishing before the flowers appear. July to September.

Dry ground or on hillsides. Nova Scotia to Florida and westward.

*S. Béckii*.—This species, smaller than the last, has a smooth and very slender low stem, from 5 to 9 inches tall, and a few small flowers in a terminal short spike. Leaves, from the base of the stem, ovate, narrowed into a short petiole, perishing before



SLENDER LADIES' TRESSES (*Spiranthes cernua*)  
(See page 54)

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or at the time of flowering. *Root*, a single, long, and narrow tuber. August and September.

Massachusetts to Florida, westward to Texas. In dry soil, near the coast.

*S. præcox*.—An earlier blossoming species (July and August). Possibly a little taller than the last, with long, persistent, grass-like root-leaves, and bracts surrounding the stem above. The white flowers, often with green veining, not fragrant, stand out horizontally and twist around the stem. Racemes apt to be one-sided, 10 to 30 inches high.

Spring, in the south; summer, as far north as New Jersey. Near the coast.

### Slender Ladies' Tresses

*S. cernua*.—A variable species, both in height and leaves. This is, perhaps, the commonest of the orchids. The different species of ladies' tresses are much alike, all being known by the twisting of the spike of flowers. In this species the flowers are in rows of threes, quite close together, slightly fragrant, white, on a straight, tall stem. The *sepals* and *petals* are stiff and waxy. The *lip* is folded or wavy, oblong, turned down. There are long root-leaves, which at time of flowering have, generally, disappeared. Leafy bracts, beginning below the spike, follow around with the flowers. September and October.

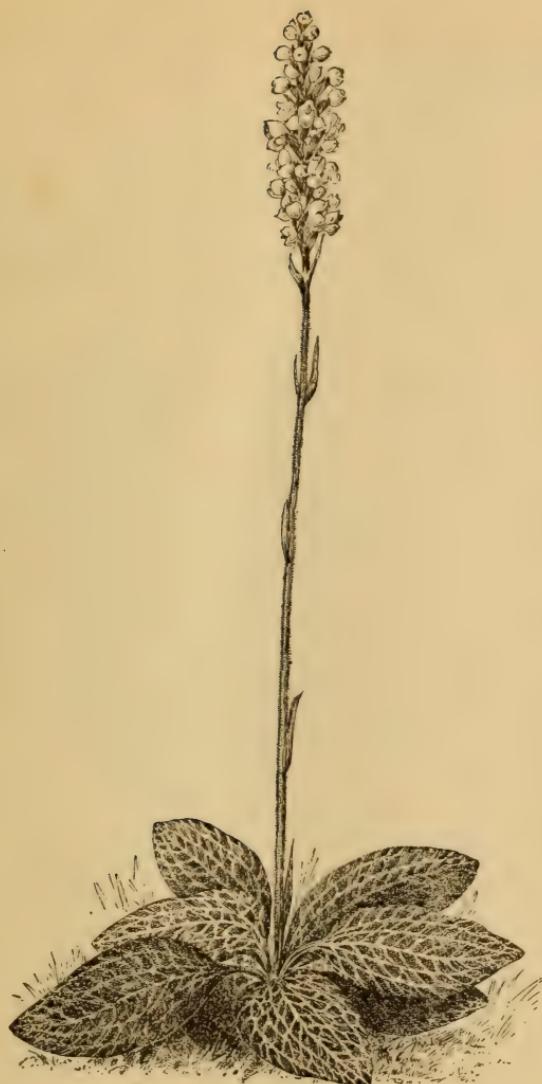
Wet meadows, and sometimes in bogs. Maine to Georgia, and westward. (See illustration, p. 53.)

### Rattlesnake Plantain

*Epipactis pubescens*.—Family, Orchis. These flowers are small, about  $\frac{1}{4}$  inch long, with free side sepals, the upper sepal with the petals, united into a helmet-shaped form. *Lip*, a pocket, or sac-shaped. *Flowers* in a dense, terminal spike on a scape 6 to 20 inches high, bearing several scales. *Leaves*, several, clustered at the root, ovate, softly downy, conspicuously veined with white. August to October.

A pretty and common plant of the woods, especially pine woods, known at once by the pretty rosettes of white-veined leaves at the root. Whole plant soft-downy. Range, over the Atlantic seaboard and westward to Tennessee. (See illustration, p. 55.)

*E. repens* is a species found in woods, especially under evergreens; lower and more slender than the last, with leaves not so



RATTLESNAKE PLANTAIN (*Epipactis pubescens*)  
(See page 54)

## HARPER'S GUIDE TO WILD FLOWERS

strongly veined with white as in *E. pubescens*, short-petioled, ovate, pointed, advancing up somewhat on the stem on one side. *Flowers* in a one-sided spike, small, greenish white, the *lip* pocket-shaped and curving backward at the apex. July and August.

Near the coast and westward to Kentucky and Tennessee.

*E. decipiens* is stout-stemmed, with *leaves* less strongly veined with white, sometimes not at all. *Flowers* rather crowded in one-sided racemes. *Lip*, not sac-shaped, but much swollen at base, prolonged into a point at the apex. July and August.

Dry woods, northward.

### Lizard's Tail

*Saururus cernuus*.—Family, Lizard's Tail. *Color*, white. *Leaves*, alternate, ovate, heart-shaped at base, with petioles thin, dark green. Summer.

An example of a perfect flower—that is, possessing stamens and pistils, but without calyx or corolla. The flowers are on short pedicels, each with a little bract under it. They are crowded in a terminal spike which gently nods and waves its numerous white threads. The stamens have long, dangling filaments. The flowers are slightly fragrant. The petioled leaves have converging ribs. Stem 2 to 5 feet tall. I have found this flower growing out of an old mill-dam where water trickling over the stones kept it perpetually wet. Its usual habitat is a swamp. Connecticut to Florida and westward. (See illustration, p. 57.)

### Bastard Toad-flax

*Comandra umbellata*.—Family, Sandalwood. *Color*, greenish white. *Leaves*, alternate, nearly sessile, about 1 inch long, pale green, pinnately veined. No *corolla*, but a tubular *calyx*, spreading at the top and lengthened beyond the fruit. At its base, above the ovary, is a thick disk, and from the edge of this the stamens spring, one opposite each lobe of the calyx, their anthers joined to the center of the disk by tufts of hair-like threads. *Flowers* in corymb-like clusters, terminal or in the axils of the uppermost leaves. *Fruit*, a roundish drupe, tipped by the 5 lobes of the calyx. Parasitic on roots of other plants. May to July.

Found in dry fields, from Cape Breton Island south to Florida and westward to the Pacific coast.



LIZARD'S TAIL (*Saururus cernuus*)  
(See page 56)

## HARPER'S GUIDE TO WILD FLOWERS

### Seaside Knotweed

*Polygonum maritimum*.—Family, Buckwheat. *Color*, greenish white or pinkish. *Leaves*, small, thickish, narrowly oblong, jointed to the sheathing stipules, their margins often turned back. Low and smooth plants, with nearly sessile small flowers, 1 to 3 clustered in the axils, without true corolla, but with a 5 or 6-parted, petal-like calyx. *Stamens*, 8. *Style*, 1. *Achene*, triangular, smooth, shining. Flower pedicels slender, jointed, and stem deeply lined. July to September.

The sheaths, *ocreae*, in this Family are large, silvery, becoming brown at base, torn or fringed on their edges. From Maine to Florida, in sand, on the shore. (See Pink Group, p. 251.)

### Water Smartweed

*P. acre*.—Tall, erect perennials, with smooth stems. *Flowers*, white or sometimes pale pink, in stiff, upright spikes. *Stamens*, 8. From the base of the stem which rests upon the ground, rootlets spring.

Wet ground, as banks of rivers and brooks. Massachusetts, along the coast, southward, also westward. (See Pink Group, p. 251.)

### Halberd-leaved Tear-thumb

*P. arifolium*.—*Color*, pale pink or white. *Leaves*, tapering, halberd-shaped, long, pointed, stalked. *Petals*, none. *Calyx*, 5-parted, green, with pink edges. *Stamens*, 8. *Styles*, 3. *Flowers*, few, in loose racemes. Summer and early fall.

Like a cat's fur, this plant must be stroked the right way—that is, downward. The stem is then as soft as satin. But run your finger upward, a thousand vicious little prickles stand up and scratch you. It is then a tear-thumb. By means of these prickles the plant climbs over every other herb and shrub which chances to be its neighbor.

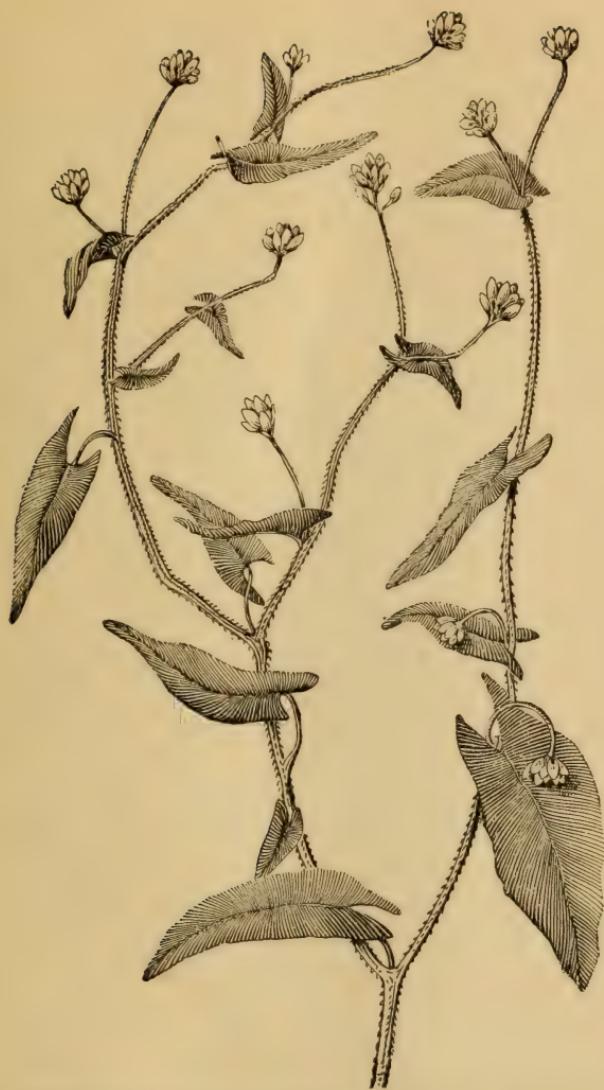
### Arrow-leaved Tear-thumb

*P. sagittatum* has short-stalked, arrow-shaped leaves. The flowers—white, in little knots or buttons—are on the ends of the branches. The prickles on this species are rather more savage than in the other. Both are common in moist, low grounds.

(See illustration, p. 59.)

### Coast Jointweed

*Polygonella articulata*.—Family, Buckwheat. *Color*, light rose, almost white. *Leaves*, jointed at base, sheathing the stem, very narrow, alternate. September.



ARROW-LEAVED TEAR-THUMB (*Polygonum sagittatum*)  
(See page 58)

## HARPER'S GUIDE TO WILD FLOWERS

A beautiful plant, with thread-like stems and leaves, growing in sandy soil. The flowers (very small) are on jointed, slender stalks, in small racemes, 1 to 3 inches long. The leaves, sheathing the stems with thin, naked coverings, show that the plant is a buckwheat. The flowers have no corolla, but a 5-parted calyx. They are so minute that they can only be studied through a magnifying-glass. Plant 6 to 12 inches tall. It grows in pure sand along the railroads or by waysides, not far from the coast from Maine to Florida. Nothing can be more dainty than this fine, soft-foliaged little thing. (See illustration, p. 61.)

### Scoke. Pokeweed. Garget. Pigeon Berry

*Phytolácca decándra*.—Family, Pokeweed. Color, white. Leaves, large, smooth, thick, oval, pointed, veiny, alternate. Calyx of 5 white sepals, with a pink tint on the outside. Corolla, wanting. Stamens, 10, giving the specific name. Styles, 10. Ovary, green, conspicuous, forming in fruit a 10-celled berry, with a single seed in each cell, surrounded with purplish juice. A tall weed, 5 to 10 feet high, with stout, upright stems and flowers in racemes, rank-stemmed, with a broad, poisonous root. The berries cannot be poisonous, for birds eat them. July to September.

This is one of the plants that springs up in burned-over districts. In one season such blackened ground bears myriads of gargets where none was seen before. They also like to creep up near dwellings. I have in mind one which grows back of a country church, close to its wall, always in the shade, reaching the pulpit window with its tall stem.

“Its cylindrical racemes of berries of various hues, from green to dark purple, 6 or 7 inches long, are gracefully drooping on all sides, offering repasts to the birds, and even the sepals from which the birds have picked the berries are a brilliant lake-red, with crimson, flame-like reflections, equal to anything of the kind—all on fire with ripeness.”—Thoreau.

### Forked Chickweed

*Anýchia polygonóides*.—Family, Knotwort. Color, greenish white. Leaves, minute, very narrow, with small stipules.

A difficult plant to analyze, on account of the minuteness of the flower, which can be studied only under a magnifying-glass. It will then be seen to be minus corolla, with a dry, leathery calyx of 5 sepals, 2 or 3 stamens, 2 stigmas. Flowers, nearly sessile, clustered. Fruit, 1-seeded, bladder-like. Height, 1 to 2 feet. Stem



COAST JOINTWEED (*Polygonella articulata*)  
(See page 58)

## HARPER'S GUIDE TO WILD FLOWERS

forking many times into spreading branches. The minute flowers lie in the forks. Summer.

Open woods, New England to Florida, and westward.

### Carpet Weed. Indian Chickweed

*Mollugo verticillata*.—Family, Aizoaceæ. No petals, but 5 sepals, which are white inside, green outside. Leaves, small, in whorls at the rooting stem-joints, broad, obtuse at apex, narrow at base. July and August.

A prostrate plant of the nature of a weed, common, growing in sterile soil, in beaten paths and cultivated ground, too humble, almost, to attract notice.

### Corn Spurrey

*Spérula arvénis*.—Family, Pink. Sepals and petals, 5 each. Stamens, generally, 5 or 10. Styles, 5. Leaves, whorled, 1 to 2 inches long, thread-like, with very small stipules. July and August.

A delicate, pretty plant of a bright green color in stem and leaves, 6 to 18 inches high, found mainly in corn or grain fields. (See illustration, p. 63.)

### Pearlwort

*Sagina procúmbens*.—Family, Pink. Sepals, 4 or 5, longer than the petals, broad. Petals, 4, or sometimes wanting. Stamens, as many as sepals, or twice as many. Styles, 4 or 5. Leaves, small, thread-like, numerous. After flowering, the leaf-stems sometimes become hooked at the top. Summer.

A small, matted plant, moss-like, spreading on the ground in damp woods, on wet rocks, and near springs, chiefly near the coast.

*S. decúmbens*.—Petals, 4, small, or sometimes wanting. Sepals, stamens, and styles, 4. Leaves, short, bristle-tipped, thin, hairy, clustered near the base. Summer.

Sandy soil.

### Pine-barren Sandwort

*Arenaria caroliniana*.—Family, Pink. Sepals and petals, 5. Stamens, 10. Styles, 3. The pod splits into 3 parts when ripe. Leaves, overlapping, spreading, bristly, awl-shaped. A tufted plant with short and grooved stems. May to August.

Above, the branches are leafless and bear many flowers in cymes. A pretty flower, growing in sand. I have found it growing on the road from Bridgehampton to East Hamp-



CORN SPURREY (*Spergula arvensis*)  
(See page 62)

## HARPER'S GUIDE TO WILD FLOWERS

ton, Long Island, looking brightly out of arid sand where one would think nothing could grow. New York, New Jersey, and southward.

### Broad-leaved Sandwort

*A. lateriflora*.—*Sepals, petals, 5 or 4. Stamens, 10. Pod, 3-celled. Leaves, blunt, oval or oblong, sessile, about 1 inch long.* May and June.

Small, star-like flowers, on low, erect, downy branches, 2 to 4 on the peduncles. In sand, near the coast.

### Sea-beach Sandwort

*A. peploides*.—A fleshy plant, growing from a rootstock. Branches 6 to 10 inches high, ascending, bear flowers sessile and terminal in the axils of the thick, partly clasping, ovate leaves. June.

In sand, near the coast. Maine to New Jersey and northward.

### Thyme-leaved Sandwort

*A. serpyllifolia*.—Parts of the flower like the foregoing. The pod, when ripe, splits first into 3, then into 6 pieces. Leaves, opposite, small, pointed. Flowers in leafy cymes. June to August.

Sandy soil. A common little dooryard plant, much branched and leafy.

### Common Chickweed

*Stellaria media*.—Family, Pink. (Stella, a star, from the star-shaped flowers.) *Sepals, petals, like most of this Family, 4 or 5. Stamens, twice as many. Styles, 3. Petals shorter than sepals, divided so as to look like 8 or 10. Leaves, ovate or oblong, petioled, with hairy lines. Weak-stemmed and prostrate. Spring and summer. A weed.*

It prefers shady, damp ground, but will grow almost anywhere in gardens. The little round pods, as well as leaves, make food for caged birds.

Mr. W. H. Gibson has found the chickweed blossoming under snow in midwinter. He says: "It must indeed be a cold day when 'The chickweed's eye is closed.' You are always sure of it. Even in midwinter, if you know its haunt in some sunny nook, you may dig away the snow and pick its white, starry blossoms, larger and fuller now than those of summer."

## WHITE GROUP

### Long-leaved Stitchwort

*S. longifolia* has a number of small, star-shaped white flowers on long pedicels, in cymes. *Stems*, sometimes with rough angles, 8 to 18 inches high. *Leaves*, long and narrow. Widely spread, growing in grass.

### Northern Stitchwort

*S. borealis*.—*Petals*, 2 to 5, very short, overtopped by the *calyx*, often none. *Styles*, 4. *Leaves*, broadly lance-shaped, sessile, very bright green. *Stem*, weak, much forked, the *flowers* in leafy cymes at the ends and in the forks of the branches. 6 to 18 inches high. Summer.

Wet meadows and low, shaded grounds. New Jersey northward and westward.

### Swamp Starwort. Marsh Chickweed

*S. uliginosa*.—*Flowers* in sessile, broad, flat clusters. *Leaves*, lance-shaped, 6 to 16 inches high. Summer.

This is not a common plant. It may be distinguished by the prolongation of the stem beyond the flowers, leaving the cyme of blossoms lateral instead of terminal as in other chickweeds. It is weak-stemmed, reclining.

### Mouse-ear Chickweed

*Cerastium viscosum*.—Family, Pink. (Generic name means a horn, from size and shape of the pod.) All parts of the flower in fives. *Petals*, 2-cleft. *Leaves*, ovate, oblong, hairy. An annual, rather clammy, rough, 6 to 8 inches high. The tiny *flowers* are in clusters, terminating the stem. *Pods* grow quite long on long pedicels. May and June.

Grassy lawns and fields in the Middle Atlantic States, widely extended.

### Field Mouse-ear Chickweed

*C. arvense*.—*Petals*, inversely heart-shaped, more than twice the length of the sepals. *Pods*, quite long. The narrow, lance-shaped, opposite *leaves* grow smaller toward the end of the branch, on weak petioles. *Stems*, ascending, somewhat downy, 4 to 8 inches high. May to July.

Dry, rocky fields.

### Common Mouse-ear Chickweed

*C. vulgatum*.—This species has larger, pedicelled *flowers*, clustered on spreading *stems* which are clammy and hairy, ascend-

## HARPER'S GUIDE TO WILD FLOWERS

ing to about a foot in height. Upper leaves are thin bracts. May to July.

In dooryards and fields, a weed.

*C. nutans*.—*Petals*, often small or wanting; when present, longer than the calyx. *Leaves*, lance-shaped to oblong. *Pods*, prominent, nodding on the stalks, curving upward at the apex. The plant sends up straight, slender stems, much branched, 18 inches high or less. May to July.

Moist, rich soil. New England States and westward.

### White Campion. Evening Lychnis

*Lychnis alba*.—*Family*, Pink. *Color*, white, sometimes with a pink tinge. *Calyx*, tubular, rough, hairy, with 5 teeth. *Petals* on claws, with crowns at base, 2-cleft. *Leaves*, ovate to lance-shaped, sessile above, with margined petioles below. Biennial, branching from a stem 1 to 2 feet high. *Flowers* slightly fragrant, opening in the evening, closing with daylight. *Pod* opening by ten teeth. Summer.

Waste places.

### Starry Campion

*Silene stellata*.—*Family*, Pink. *Calyx*, bell-shaped, swollen, 5-pointed, often brownish or reddish, sticky. *Petals*, fringed, on claws. *Stamens*, 10. *Styles*, 3. *Pod*, 1-celled. *Leaves*, in whorls of fours, smaller toward the top, pointed, somewhat toothed. *Flowers*, conspicuous, large, 1 inch across, in a terminal panicle. *Stem*, swollen at the joints and viscid, from which property the English name catchfly is derived. Height, 2 to 3 feet. June and July.

A showy plant, sure to catch the eye of the stroller on hillsides, and well worth our attention. Hills and rocky banks. (See illustration, p. 67.)

### Bladder Campion

*S. latifolia*.—*Calyx*, 5-toothed, prettily veined, much swollen. *Petals*, 5, so deeply divided as to seem like 10. *Stamens*, 10. *Styles*, 3. *Flowers*, in loose panicles. *Leaves*, ovate to lance-shaped, opposite.

A smooth plant, 1 foot high, easily known by its inflated calyx and good-sized flowers. An imported species, now common in some parts of New England and New York, extending westward to Illinois. Dry fields, waste places.



STARRY CAMPION (*Silene stellata*)

(See page 66)

## HARPER'S GUIDE TO WILD FLOWERS

### Night-flowering Catchfly

*S. noctiflora*.—This species opens its *petals* only by night. The *calyx* is somewhat swollen, 1 inch long. *Leaves*, long, narrow, tapering to a point.

The pretty, fragrant flowers invite the night-moths by throwing open their petal doors by night. In the daytime they are only wilted, uninteresting flowers.

Mr. W. H. Gibson says: “Is not the midnight like Central Africa to most of us?” asks Thoreau; and not without reason, for even the best-informed student of daylight natural history may visit his accustomed haunts in the darkness as a pilgrim in a strange land. At least once in the summer to light our lantern and walk among the flowers would well repay us, for the flowers and leaves asleep are a strange, unwonted sight. And occasionally the rule is reversed, as in the case of the night-flowering catchfly, and the flower, like some belle of the ball dressed in white, is awake, entertaining insect guests, to whom her portals are closed by day.”

### Water Nymph. Water Lily

*Castália odoráta*.—Family, Water Lily. *Sepals*, 4. *Petals*, numerous, the outer broad, concave, growing narrower toward the center, and passing into stamens. According to some authorities, this flower exhibits rather the transformation of stamens into petals. *Pistil*, with a many-celled ovary, whose rounded top bears radiate stigmas around a central projection. The *stem* is hollow, long enough to bring the blossom out of water. *Leaves*, thick, roundish, heart-shaped, 6 or 8 inches across, long-petioled, with entire margins, often reddish underneath. June to August.

The flower opens in the morning and closes at night.

This pure and beautiful water queen, with its ravishing fragrance, is everywhere a favorite. Its large, handsome leaves make us think of smooth waters with green banks, and an idle hour, perhaps, spent in a rowboat with a friend. Pity that such nymphs should have acquired a commercial value, and that boys with hot, perspiring hands should drag them about in the sun on our city streets and into the railway trains for the few pennies they will bring.

### Common White Water Crowfoot

*Ranúnculus aquátílis*, var. *capilláceous*.—Family, Crowfoot. *Petals and sepals*, 5. At the base of the petals a spot or indenta-

## WHITE GROUP

tion may be found. *Stems* about 1 foot long. *Leaves*, soft, finely cut, hair-like, with a dilated stem. They all float under water, and collapse when taken out.

A delicate, rather pretty plant, found in shallow, slow waters.

### Stiff Water Crowfoot

*R. circinatus*.—This has blossoms similar to the last, but differs in its *leaves*, which are sessile, rigid, divided, all growing under water, but not collapsing when taken out. They have broad, large *stipules*. About 1 foot long.

Aquatic, found in slow streams from Vermont to Pennsylvania, and westward.

### Tall Meadow Rue

*Thalictrum polycanthum*.—Family, Crowfoot. *Flowers* in compound panicles. *Petals*, none. *Sepals*, white. The *stamens* and *pistils* are borne on different plants. The staminate flowers are the prettier, in compound panicles, loose and feathery, with white filaments, thicker toward the top. The pistillate flowers are smaller, more compact, and greener. *Leaves*, thrice compound, cut into fine segments, the leaflets being small, rounded or lobed, oblong, stalked. July to September.

A plant lovely both in its soft, feathery blossoms and its delicate foliage, growing tall, sometimes 8 feet. It masses beautifully with clumps of wild roses wherever the soil is wet and springy. My own observation indicates that the plants bearing staminate flowers are much more common than those bearing pistillate. I have often failed to find one of the latter among many of the former.

### Rue Anemone

*Anemonella thalictroides*.—Family, Crowfoot. No *petals*. *Sepals*, 5 to 10, rather large, white, occasionally pinkish. *Flowers*, several, in an umbel. At the base of this umbel is an *involucro* of long-petioled, roundish, 3-lobed leaflets. A *leaf*, similar in shape, arises from the root on a slender *petiole*, which disappears early. *Roots* a cluster of thickened tubers. This is often confounded with the wood anemone.

A delicate beauty, both in its foliage and flowers, growing from a cluster of tubers (like miniature dahlia roots), quickly withering after being picked. If one wants a bit of the woods transplanted to the house, they may be carefully taken up by the roots and set in a saucer of moss. For



RUE ANEMONE (*Anemone thalictroides*)

(See page 69)

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table decoration there can be nothing daintier. (See illustration, p. 70.)

### Thimbleweed

*Anemone riparia*.—*Family*, Crowfoot. *Color*, white. *Petals*, none. *Sepals*, large, looking like petals, softly silky underneath. *Pistils* and *stamens*, numerous. *Fruit*, a cylindrical head which suggests the common name of thimbleweed. *Achenes*, flat, clothed with long, woolly hairs. *Leaves*, compound or dissected, from the root. The stem bears, some distance below the flowers, an involucre of long-petioled, lance-shaped, thin leaflets. May, June.

A tall species with showy flowers. The stem branches above into 2 or more single-flowered peduncles. River-banks from Maine to eastern Pennsylvania.

*A. cylindrica* is a slender, silky-stemmed plant, with a whorl of involucral, 3-divided leaves half-way up the main stem, from which spring 2 or 3 naked flower-stalks, or perhaps a single peduncle having a second whorl of smaller, cut leaves. Plant about 2 feet high, with greenish-white sepals.

These two species are very similar. Attention to their foliage will enable one to distinguish between them.

### Wind Flower. Wood Anemone

*A. quinquefolia*.—*Color*, white, the sepals sometimes striped or tinted with blue or rose outside. *Petals*, none. *Sepals*, 4 to 7, like petals. *Stamens*, many. *Pistils*, 15 to 20, forming a head of carpels, with hooked beaks in fruit. *Flower*, single, large, open, 1 inch broad, slightly nodding. *Leaves*, from the root, and 3 on the flower-stem, forming an involucre above the middle. Leaflets 3-divided, the lateral in one variety 2-parted, oblong in general outline, on long petioles. April and May.

A delicate little plant, one of the first to appear in spring. It grows from a thin, elongated rootstock. Sterile plants also come up, consisting of a single root-leaf. It is a sure proof that winter is gone when the first wind flower appears in protected nooks, looking bravely out into the new world, daring late frosts and winds, secure in that very fragileness which bends to the strong blasts.

Open woods or margins of deeper woods. Also found in pine woods. (See illustration, p. 72.)

### Goldthread

*Coptis trifolia*. (Coptis, to cut, alluding to the divided leaves.)—*Family*, Crowfoot. *Sepals*, 5 to 7, falling early. *Petals*, same



WIND FLOWER. WOOD ANEMONE (*Anemone quinquefolia*)  
(See page 71)

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number, club-shaped, small, thick, fleshy, and hollow at apex. *Stamens*, numerous. *Pistils*, 3 to 7, stalked. *Flowers* on leafless scapes, not conspicuous. *Leaves* from the root, 3-lobed, the leaflets sharply toothed, shining, evergreen. *Stems*, low, smooth. May to July.

The beauty of the plant lies in the leaves, which nestle among bog-mosses and are bright and shining the summer through. The "goldthread" appears when we dig up the root and find it composed of long, yellow fibers.

### Dwarf Larkspur

*Delphinium tricorne*.—Family, Crowfoot. *Color*, white or blue. (See among Blue Flowers, p. 310.)

### Black Snakeroot. Black Cohosh. Bugbane

*Cimicifuga racemosa*.—Family, Crowfoot. *Sepals*, 4 or 5, soon falling. *Petals*, small, on claws, 2-horned, like transformed stamens. *Stamens*, many, on slender, white filaments, giving the flower a feathery appearance. *Pistils*, 1, sometimes 2 or 3, forming a curious ovoid pod in fruit. *Flowers* in long, wand-like racemes which extend in fruit 2 or 3 feet. *Stem*, often tall, 7 or 8 feet, from a rootstock. *Leaves*, alternate, twice or thrice compound, the leaflets small, cut and toothed, on long petioles. July.

A conspicuous, coarse plant, with an unpleasant odor. It is supposed to be poisonous to insects.

### Red Baneberry

*Actaea rubra*.—Family, Crowfoot. *Color* of blossom white; berries bright red. *Sepals*, 4 or 5, falling early. *Petals*, 4 to 10, small, broadened above, on slender claws. *Stamens*, numerous, with white filaments. *Pistil*, 1, making a many-seeded, oval berry. *Leaves*, large, broad, twice or thrice compound, the leaflets cut and toothed. *Flowers* in a short, thick raceme at the end of the stem which bears few leaves, about 2 feet high. April and May.

A handsome plant, especially when its bright fruit enlivens the woods. Common northward.

### White Baneberry

*A. alba* is even more conspicuous, with white berries on curiously thickened red stalks. At the tip of the berry is a black spot. Its compound, sharply-toothed leaves are broad and handsome. The berries of *Actaea* are poisonous.

Both species have a wide range in our Eastern woods, from New England southward.

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The flowers of this species appear a little later than those of the red baneberry.

### Golden Seal. Orange Root. Yellow Puccoon

*Hydrástis canadénsis*.—*Family*, Crowfoot. *Color*, greenish white. *Petals*, none. *Sepals*, 3, colored, soon falling. *Stamens*, numerous. *Pistils*, about 12, with flat, double stigmas. *Fruit*, a head of crimson, 2-seeded berries. *Rootstock* yellow and bitter. *Leaves*, 1 from the root, 2 near the summit of the hairy stem, rounded or heart-shaped at base, 5 to 7-lobed, 4 to 9 inches wide, doubly toothed. Early spring.

An interesting little plant with a single flower terminating a low and hairy stem, bearing a pair of quite large leaves. From New York southward and westward. Rich, moist woods from New England southward.

### May Apple. Mandrake

*Podophýllum peltátum*.—*Family*, Barberry. *Sepals*, 6, falling early. *Petals*, 6 to 9, roundish. *Stamens*, twice as many as petals. *Fruit*, a large berry, with many seeds filling the cavity. The large, solitary flower droops from a short peduncle between the leaves. Three green bractlets lie underneath, which soon fall. Besides the flowering stems, other stems arise from the rootstock bearing one roundish, 7 to 9-lobed leaf, with the stalk joined underneath to the middle. *Leaves*, 2 on forking, stout petioles rising above the flower. Large, variously 5 to 9-lobed, the stalk affixed underneath, a little distance from the edge. May.

The children call these umbrella leaves. The fruit, called in New Jersey May apple, is edible—that is, it is sweetish and not poisonous, as are all other parts of this singular plant. In New England, May apple is the name of a modified bud which produces a singular pulpos body upon the azalea.

Mr. Gibson speaks of the mandrake berry as “a yellow, tomato-like affair,” which, he adds, “has a selfish errand in life. It is filled with seeds, and is concerned only in its own posterity.”

### Twinleaf. Rheumatism Root

*Jeffersónia diphýlla* (named after Thomas Jefferson).—*Family*, Barberry. *Sepals*, 4. *Petals* and *stamens*, 8. *Pod*, with many seeds, opening by a horizontal slit. *Flower*, one inch across, single, on a naked scape, 6 to 8 inches high. *Leaves*, all from the root, long-petioled, divided into 2 ovate leaflets. April and May.

A plant of low growth, with fibrous roots, perennial, not

## WHITE GROUP

uncommon in the open woods of western New York, southward and westward.

### Umbrella Leaf

*Diphylléia cymosa*.—Family, Barberry. *Sepals*, petals, and *stamens*, 6. Sepals falling early. *Fruit*, a few-seeded blue berry. *Flowers* in cymes, terminating the stem, which grows from a thick rootstock. *Leaf*, one very large, from the root, roundish, deeply cut into nearly equal halves, each half being 5 to 7-lobed, with petiole fastened underneath, like an open umbrella. Often 2 more similar leaves, but smaller, joined to petioles near the margin of the leaf, on the flower-stem. May.

Near springs on the mountains of Virginia and southward.

### Bloodroot

*Sanguinaria canadensis*.—Family, Poppy. *Sepals*, 2. *Petals*, 8 to 12. *Stamens*, many. *Pistil*, 1. *Fruit*, an oblong, dry pod. *Leaf*, 1, from a short rootstock, rounded, deeply lobed. April and May.

This beautiful, snowy flower of early spring grows on a naked scape accompanied by a single large, round leaf, which infolds the bud and expands with the flower. Both come from a thick rootstock filled with a blood-red juice, which stains the hands picking the flower. There are many woods and low hillsides dotted with these pure flowers in their season, which alone are worth a trip from the city to see. (See illustration, p. 76.)

### White Poppy

*Papaver somniferum*.—Family, Poppy. *Color*, white or bluish purple. *Sepals*, 2, thin, falling after the flower appears. *Petals*, 4. Numerous *stamens*. *Style* short, and *stigma* broad, overhanging the ovary. *Leaves*, alternate, divided, clasping, cut, toothed. *Fruit*, 1 inch in diameter, opening by chinks under the edge of the stigma. *Stem*, from 1 to 3 feet high, somewhat hairy. Buds droop on the stem; the flower is erect. Late spring and summer. (Listed also under Purple Group, p. 310.)

This is the opium poppy, cultivated so largely in Turkey and India.

The part of the plant used in commerce is the milky juice which exudes from the capsules. These are carefully cut in the evening, and the juice is collected next morning. When sufficient liquid has been gathered on one dish, it is drained



BLOODROOT (*Sanguinaria canadensis*)

(See page 75)

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and evaporated, made into round balls, and placed on slats to dry. The opium balls are then ready for market.

Opium contains morphine, narcotine, codeine, thebaine, papaverine, etc. Its use in medicine is well known. The Romans understood its medicinal properties. Virgil speaks of the plant, and of its sleep-producing capacities.

### Dutchman's Breeches

*Dicentra Cucullaria* (2-spurred).—Family, Fumitory. *Color*, white, tipped with pale yellow. *Sepals*, 2, small, scale-like. *Petals*, 4, slightly joined; the 2 outer forming 2 spurs, spreading apart, longer than the short flower-stalk. *Stamens*, 6, *Pistil*, 1. *Leaves*, on slender petioles, from rootstocks, thrice-compound and variously cut into long and narrow divisions. April.

Rich woods in the Northern States, as far south as South Carolina. The plant grows from a scaly bulb, composed of grain-like tubers.

The odd flowers grow in a raceme on leafless scapes. One of the prettiest of our wood-dwellers. Is it a mere coincidence that so many of our early spring flowers are of the fragile, delicate sort, while summer and autumn bring heavier bloom, as if the nature hand were at first hesitating and timid, and later acquired a bolder stroke? The wild sunflower, for example, with bur-marigolds and tall asters, can only be associated with fall, while saxifrages, violets, spring beauties, hepaticas, fumitory, and pale corydalis seem from their very nature to be blown from the breath of spring. (See illustration, p. 78.)

A cultivated species of this Family, *Dielytra*, is well known from its blood-red, spurred, heart-shaped corolla. One of its common names is bleeding heart.

### Squirrel Corn

*D. canadensis*.—Found more in northerly woods. Under-ground shoots bear yellow, small tubers, resembling grains of corn. The flowers are white or greenish, tinged with pink, with short spurs, and a prominent crest on the two inner petals. Leaves like the last. A delicate fragrance, as of hyacinths, pervades these dear little flowers.

### Whitlow Grass

*Draba verna*.—Family, Mustard. *Sepals* and *petals*, 4, the latter deeply 2-cleft. *Pistil*, 1. *Pods* on long stalks, oval, pointed. *Leaves*, all tufted at the root, oblong or lance-shaped. April and May.



DUTCHMAN'S BREECHES (*Dicentra Cucullaria*)  
(See page 77)

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The small *flowers*, so small as almost to escape notice, are borne on leafless scapes, from 1 to 5 inches high. They are cleistogamous, not fitted for cross-pollination, but pollinated in the buds, before the flowers open. Introduced from Europe, growing in sandy soil along roadsides and in waste places.

*D. caroliniana*.—*Sepals* and *petals*, 4. *Pod*, smooth, linear, on a short stalk. *Leaves*, alternate, hairy, oblong, sessile. A small plant, less than 5 inches high, with little white flowers in a raceme which becomes about 1 inch long in fruit. Sometimes the petals are wanting. March to May.

Not so well known as, but earlier than, the whitlow grass. This species, coming into bloom in March, is one of our earliest flowers.

Sandy and waste fields from Massachusetts southward and westward.

### Wild Peppergrass

*Lepidium virginicum*.—Family, Mustard. *Stamens*, 2. *Pod*, roundish, notched above, divided by a partition into 2 1-seeded cells, which are flattened at right angles to the partition. *Leaves*, thin, tapering at the base, upper lance-shaped, deeply toothed, the lower often cut. *Flowers*, very small, arranged in long racemes. Taste peppery. 2 feet high or less.

A weed found along roadsides and in waste fields.

### Shepherd's Purse

*Capsella Bursa-pastoris*.—Family, Mustard. *Leaves*, mostly clustered at root, with a few arrow-shaped, scattered along the stem, all much and variously cut, sessile. Small, white *flowers* grow in long racemes, the triangular pods, called *silicles*, rapidly forming below. *Pod*, 2-valved, valves boat-shaped. 6 to 20 inches high. Common weeds.

### Mouse-ear Cress

*Sisymbrium Thalictorum*.—Family, Mustard. *Leaves*, oblong, entire or slightly toothed. A small plant, branched, rough hairy at base. The 4-sided *pods* are longer than the pedicels. Early spring.

Imported from Europe, and found here in old, rocky fields from Massachusetts to Minnesota and southward.

### Water Cress

*Radicula Nasturtium-aquaticum*.—Family, Mustard. *Flowers*, as in others of this Family. *Pods*, short. *Leaves*, pinnate.

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Aquatic or found in wet ditches or in marshes. Used for salad and for garnishing dishes.

### Crinkle-root. Pepper-root. Toothwort

*Dentaria diphylla*.—Family, Mustard. Pod, long and flat. Flowers, in a terminal corymb. Rootstock, edible, 5 to 10 inches long, tasting like water-cress. Leaves, on the stem and from the root, whorled or opposite, petioled, each divided into 3 coarsely toothed leaflets. May.

Perennials, found in cool, moist woods in the Northern and Middle States.

*D. laciniata*.—Color, pale purple or nearly white. Leaves, in 2 or 3 whorls, on the stem, 3 in each whorl, long-petioled, each leaf 3-parted, into linear or lance-shaped leaflets, which are irregularly and deeply toothed. Similar root-leaves, or none. April and May, as early as March in the South. (See p. 311 under Purple Group.)

A short raceme of flowers terminates the unbranched stem. A pretty species, with graceful foliage, found from New England to Minnesota and southward.

### Spring Cress

*Cardamine bulbosa*.—Family, Mustard. Flowers, in fours, but 6 stamens, 2 being shorter than the others. Pod, long, tipped with the slender style, and large stigma, 2-valved, opening with a sudden movement, disclosing a single row of seeds in each cell. Leaves, simple, broad, those at root roundish or heart-shaped, those on stem becoming narrower until they are lance-shaped. All somewhat toothed. 6 to 18 inches high. April to June.

Our earliest and prettiest bitter cress, with quite large flowers in terminal clusters, much like the candytuft of our gardens. Wet, low grounds.

*C. hirsuta*.—This species is hairy, small, with leaves clustered at the root and growing on the stem, either cut or entire. It may be a delicate plant, with leaves almost like ferns, and fine, soft clusters of flowers, or it may grow 2 feet tall, with coarser, larger foliage. It must have wet soil. I have seen it most beautiful in the hills, on wet rocks, where perpetual springs trickling down make an environment which the little cress loves.

### Cuckoo Flower

*C. pratensis* will scarcely be found away from the wet meadows, and even there it is rare. It is a handsome plant, with white or

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pink blossoms on stems from a short rootstock. *Leaves*, divided into 7 to 13 leaflets, the lower leaflets stalked, upper sessile. May.

New Jersey southward. (See p. 260 under Pink Group.)

### Hairy Rock Cress

*Arabis hirsuta*. — Family, Mustard. *Color*, white or greenish. *Flowers* similar to others of this Family. *Pod*, long, slender, upright, 2-valved by a thin partition. *Stem*, roughish, erect, simple (unbranched), 1 to 2 feet high. *Leaves*, long, narrow or oblong, partly clasping the stem by somewhat arrow or heart-shaped bases. May and June.

Wet places in the Middle States.

*A. laevigata* has root-leaves occasionally lyre-shaped, stem-leaves similar to those above. A smooth plant, taller than the last.

### Sickle Pod

*A. canadensis* has sessile stem-leaves, acute at apex and base, the lower ones toothed. *Pods*, rough and hairy, flat, curved, on hairy stalks.

### Tower Mustard

*A. glabra* is the tallest species, 2 to 4 feet, with yellowish-white petals, oblong or lance-shaped stem-leaves, pods 3 inches long, very narrow. Around rocks.

*A. lyrata* differs in having much cut and lyre-shaped root-leaves, with stem-leaves entire or sometimes toothed. *Petals*, long. *Sepals*, yellowish green.

These all bear rather small white blossoms in terminal, flattish racemes, found in rocky woods.

### Spider-flower

*Cleome spinosa*. — Family, Caper. *Color*, white or crimson. *Calyx*, 4-cleft. *Corolla*, of 4 petals on long claws. *Stamens*, 6, equal in length, with very long, thread-like filaments. *Pistil*, a very long stalk, at the end of which the seed-vessel is borne. *Pod*, long, many-seeded. *Leaves*, long-petioled, much cut, the leaflets 5 to 7, finely serrate, lance-shaped.

A showy flower found in many gardens, also here and there escaped from cultivation.

### Round-leaved Sundew

*Drôsera rotundifolia*. — Family, Sundew. *Petals*, *sepals*, *stamens*, 5, or sometimes 6. *Styles*, 3 to 5, so deeply divided as to



ROUND-LEAVED SUNDEW (*Drosera rotundifolia*)  
(See page 81)

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seem twice the number. *Leaves*, clustered at the root, round or oblong, on long stems, glandular, hairy. June to August.

*Flowers* are borne on prolonged leafless stems, on one side. They open only in sunshine, and must be pressed for the herbarium as soon as gathered. The curious leaves resemble in shape a long-handled frying-pan. They are covered with reddish hairs tipped with purple glands.

Our pretty, bejeweled bog-herb is carnivorous. It craves animal food, and employs wily means for obtaining it. An insect alighting upon the open leaves instantly arouses the glands to activity, as food in the stomach excites the gastric juices. Red tentacles close upon and hold fast the prisoner, pouring the contents of the glands upon it, and the process of digestion and absorption begins at once. Only very small insects can thus be entrapped, because of the smallness of the leaves.

A cranberry marsh near my summer cottage on Long Island is almost carpeted with this sundew, so as to give it a reddish hue. The young leaves are rolled up, like ferns, from apex to base. (See illustration, p. 82.)

### Long-leaved Sundew

*D. longifolia*.—This differs from the last, mainly in the shape of its *leaves*, which are spatulate, long, rather than round. Also the glandular hairs are not found on the leaf-stalks. It is rarer than the last, low, 3 to 8 inches high. June to August.

In bogs, or even in water. I have found it only in wet woods in New Jersey.

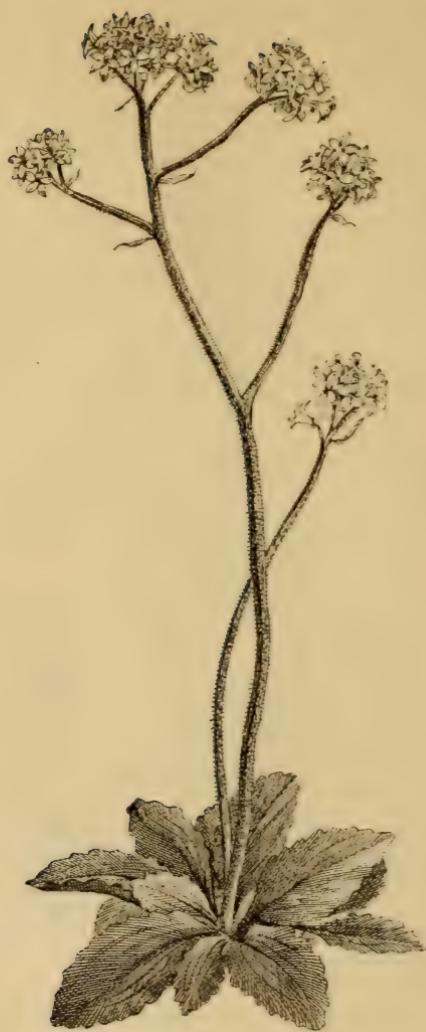
### Stonecrop. Orpine

*Sedum ternatum*.—(From *sedeo*, to sit, these plants often growing flat upon rocks and walls). *Family*, Orpine. *Sepals* and narrow *petals*, 4 or 5. *Stamens*, twice as many. *Pistils*, 5, forming in fruit a 5-celled *capsule*, angled, beaked, opening by the falling off of the beaks. *Stems*, 4 to 5 inches high, spreading, flattish. *Flowers*, in one-sided, at first coiled, leafy, 3-spiked cymes. *Leaves*, thick, succulent, the lower in whorls of 3, wedge-shaped, broader at apex, the upper scattered, oblong.

Not uncommon, from Connecticut to Georgia and westward.

### Early Saxifrage

*Saxifraga virginensis*.—*Family*, Saxifrage. *Calyx*, 5-parted. *Petals*, 5. *Stamens*, 10. *Pistil*, 1. *Styles*, 2. *Fruit*, a purplish



EARLY SAXIFRAGE (*Saxifraga virginiensis*)

(See page 83)

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capsule. One of our delicate early flowers, growing in clefts of rocks. *Leaves*, all at the root, round and broad at apex, narrowed into a broad petiole, somewhat toothed. *Scapes* with a few leafy bracts above. Early spring till June.

Flowers cymosely clustered upon the ends of hairy scapes, several from the same root, 6 or 8 inches high. As the stem elongates, the flower-clusters hang more loosely. Mr. Gibson says that he has seen this flower, which he calls the rock-flower, blooming in March. (See illustration, p. 84.)

### False Miterwort. Foam Flower

*Tiarélla cordifolia*.—(Tiara, a turban, from shape of pod.) *Family*, Saxifrage. *Calyx*, 5-parted. *Petals*, 5, on claws, long, narrow. *Stamens*, 10, long, conspicuous, giving the raceme of flowers a feathery, soft appearance. *Styles*, 2. *Leaves*, mostly from a rootstock, heart-shaped, with well-defined lobes and teeth, softly downy beneath. April and May.

The stem of the pretty false miterwort is a rootstock, from which the broad, open leaves and flower-stems, leafless, or sometimes with a leaf or two, grow a foot high or less. Range from New England southward along the mountains, and as far west as Minnesota. Hills and rocky woods, in rich soil.

### Miterwort. Bishop's Cap

*Mitella diphylla* ("a cap," from the shape of the pod).—*Family*, Saxifrage. *Calyx*, 5-cleft. *Petals*, 5, much cut into slender divisions. *Stamens*, 10. *Styles*, 2, short. *Capsule*, 2-beaked. *Flowers*, in slender, graceful racemes, 6 to 8 inches long, on rather low and small, hairy stems. *Leaves*, of 2 kinds; those on the rootstocks or runners, on slender petioles, heart-shaped, 3 to 5-lobed, toothed; those on the flower-stem, a pair, opposite, sessile, with stipules between. May.

Rich, moist woods, from New England to North Carolina and far westward.

### Grass of Parnassus

*Parnassia caroliniana*.—*Family*, Saxifrage. *Sepals*, 5, somewhat united. *Petals*, 5, white, large, veined with green or yellow. Five good *stamens*. At the base of each petal is a cluster of bodies which will puzzle many students. They are sterile filaments of defective stamens, 3 in each cluster. There are 4 *stigmas*, without styles, over the 4-valved capsule. *Leaves*, 1 on the flower-stem, near the base, clasping; others from the root, roundish,

## HARPER'S GUIDE TO WILD FLOWERS

somewhat heart-shaped, with thick petioles. July to September.

Very pretty, conspicuous flowers, which it is a pleasure to find. Scapes 1 to 2 feet high. Flower 1 to 2 inches broad. New England to Florida and westward. In swamps or wet grounds.

### Goat's Beard

*Aruncus sylvestris*.—Family, Rose. *Sepals* and *petals*, 5, the latter small, white. *Stamens* and *pistils* in different flowers which are sessile, in open panicles on long, slender, spike-like branches. *Leaves*, thrice-pinnate. *Leaflets*, thin, long, sharply toothed, 6 to 14 in number. June.

Tall plants, 3 to 7 feet. Perennial herbs. Rich soil, in moist woods.

### Bowman's Root. Indian Physic

*Gillenia trifoliata*.—Family, Rose. *Color*, pale pink or white. *Calyx*, a long, narrow tube with 5 erect teeth. *Corolla*, of 5 unequal, slender petals springing from within the calyx tube. *Stamens*, many. *Pistils*, 5, making 5 pods, each 2 to 4-seeded. *Flowers*, in loose panicles. *Leaves* of 3 thin, pointed, toothed leaflets, serrate, or deeply cut, ovate to oblong, sessile, with stipules. Spring.

Perennial herbs found in deep, cool, moist woods, New York to Georgia and westward.

### Wild Strawberry

*Fragaria virginiana*.—Family, Rose. *Calyx*, 5-cleft with a narrow bract between each 2 divisions. *Petals*, 5, roundish. *Leaves*, from the root, on long, hairy petioles, with 3 serrate leaflets. Runners grow from the rhizome (subterranean stem).

The fruit of the strawberry is an enlarged and juicy receptacle, with the achenes buried in depressions on the outside.

*Duchesnea indica* is a yellow-flowered strawberry. It has escaped from cultivation, and has a tasteless fruit; found southward.

The wild strawberry is a pleasant find in one's spring walks. The blossoms are delicate, the leaves pretty. The scarlet, fragrant fruit, even if small, peering from among grass and leaves, has an aroma, a delicious wild flavor that the large, juicy, cultivated berry cannot afford.

Sometimes in the New York groceries tiny cornucopias

## WHITE GROUP

made of leaves and filled with New Jersey hulled wild strawberries are offered for sale, and find eager buyers at large prices. In fields, delighting to hide in tall grass.

### White Avens

*Géum canadense*.—Family, Rose. *Calyx*, 5-divided, with bracts between the divisions. *Petals*, 5. *Stamens*, many. *Achenes*, numerous. The *styles* of the *pistils* jointed, the upper part hairy. The receptacle upon which the achenes are clustered is densely hairy. *Leaves* on the stem, toothed or 3-divided or lobed. Root-leaves variously divided into 3 to 5 leaflets, sometimes with one large, round leaflet and several smaller ones below. May to August.

In open woods.

*G. virginianum* is a stouter and very hairy species. It has small *petals*, shorter than the *calyx*. *Flowers*, on stout peduncles on which the conspicuous hairs turn backward. *Leaves*, variously divided, the lower parted to the midrib, pinnate, the upper lobed. Summer.

In moist woods and low grounds, common.

### Creeping Dalibarda

*Dalibarda repens*.—Family, Rose. The *flowers* of *Dalibarda* are of 2 sorts. The more evident have white petals, and are generally sterile, on long peduncles. Of these the *calyx* is deeply 5 to 6-parted, 3 of the divisions large, toothed. *Petals*, 5, open, spreading. Below, numerous cleistogamous, apetalous flowers on short, curving peduncles may be found, fertile, with sepals closing over the fruit. *Leaves*, in tufts, from the creeping stem or root-stock, on long petioles, broadly toothed, rounded or heart-shaped. 2 to 5 inches high. June to August.

This pretty little flower is not obtrusive, and when found might be mistaken for a stemless violet, except for the numerous stamens which are a feature of the Rose Family. On hills and in rocky woods, New Jersey northward.

### Canadian Burnet

*Sanguisorba canadensis*.—Family, Rose. *Petals*, none. *Sepals*, 4, whitish. *Leaves*, pinnate, of several oblong, deeply serrate leaflets, notched at base, rounded at apex. August and September.

The color and beauty of the flower lies in the numerous feathery stamens which hang their anthers upon long, weak, white filaments.



CANADIAN BURNET (*Sanguisorba canadensis*)  
(See page 87)

## WHITE GROUP

The *pistils*, 1 to 3, help the soft appearance of the flower-spike by tufted, plump stigmas capping long styles. The flowers, each one small, are crowded together, much like a cat-tail in size and shape. The plant grows tall, 2 to 6 feet, with large leaves, bearing stipules also serrate, joined to the stem.

A very common and showy plant, near the coast, in marshy ground. It grows with the beach golden-rod, among sterile fronds of the royal fern, tangled with beach pea stems, its wavy, white spikes towering above them all. (See illustration, p. 88.)

### White Clover

*Trifolium repens*.—Family, Pulse. The common white clover is too well known to need much description. It has the papilionaceous *corolla* (see p. 8), a 5-cleft *calyx*, with bristly teeth, much shorter than the corolla. The corolla turns brown, remaining after the flower has withered. Stems slender, creeping. Leaflets notched or heart-shaped. The stipules which are often prominent in this Family are small, like scales.

Found everywhere in fields throughout the summer. It is sweet-scented. Honey made from white clover is delicious.

### White Melilot

*Melilotus alba*.—Family, Pulse. The standard of the white corolla is longer than the other petals. The flowers grow in elongated, spike-like racemes. Leaflets, narrow to oblong, finely serrate.

A tall species, fragrant when dried, like the scent of new-mown hay. At night 2 of the leaflets fold together. The other, says Mr. Gibson, "is left out in the cold."

A roadside plant, sometimes a weed, but one that likes rich soil.

### Hairy Vetch or Tare

*Vicia hirsuta*.—Family, Pulse. *Corolla*, sometimes white, but more often a pale blue. (See p. 317.)

### Common Wood Sorrel

*Oxalis Acetosella* ("sour," referring to the acid juice of the stem and leaves).—Family, Geranium. *Color*, white, with crimson or purplish veinings. Parts of the open, spreading flower in fives. *Stamens*, 10. *Petals* often notched. *Styles*, 5, separate. *Flowers*, single, one inch across, very pretty with their dark vein-

## HARPER'S GUIDE TO WILD FLOWERS

ings, the petals thrown back, stamens and styles much in evidence. They terminate delicate, leafless scapes, springing with the leaves from a creeping rootstock. *Leaves*, 3-divided, notched, closing or "sleeping" at night by folding backward. May to July.

The whole plant lies upon the ground in the deep forest in little bunches or clusters. New England and Middle States, and in mountains of North Carolina. The plant produces cleistogamous blossoms, small, pollinated in the bud. This little plant lays claim to the following names: cuckoo's meat, sour trefoil, shamrock, alleluia. From it druggists obtain "salts of lemon."

### Seneca Snakeroot. Mountain Flax

*Polygala Sénega*.—Family, Milkwort. *Color*, white, sometimes tinged with green. *Flowers* in a close, single, elongated spike on a leafy stem from a knotty rootstock. *Leaves*, sessile, lance-shaped, somewhat broad in the middle, rough-margined. Below on the stem they are reduced almost to scales. May to July.

Rather tall, reaching 1 foot in height. Rocky and sandy soil, mostly in woods, in northern New England States.

### Whorled Milkwort

*P. verticillata*.—This species may be known by its long, narrow leaves whorled on the stem. *Color*, a greenish white or purplish. Basal leaves wanting, but a few are scattered singly on the stem. *Flowers* in short spikes, larger below, leading to a point. A bract stands behind each separate flower, and falls with the flower. 6 to 12 inches high. June to November.

Common in fields in dry or moist soil all along the Atlantic coast.

### Snow-on-the-Mountain

*Euphorbia marginata*.—Family, Spurge. The flowers of this plant (for description of Family, see p. 9) are collected in umbel-like groups of, usually, threes, surrounded by involucres of conspicuous, white-margined leaves. *Stem*, somewhat hairy, stout, tall, reaching 3 feet in height. *Leaves*, below the involucle, broad, ovate, smooth, with smooth margins. Umbels often forked.

This species is showy, not because of the flowers, but the white-bordered leaves. Often cultivated, but found wild in dry soil, waste places, westward and southward. (See illustration, p. 91.)



SNOW-ON-THE-MOUNTAIN (*Euphorbia marginata*)  
(See page 90)

**Spotted Spurge**

*E. maculata*.—Since this plant has a reddish tinge in its leaves, stems, and in the glands of the flowers, it will be described under red flowers. (See p. 265.)

**Flowering Spurge**

*E. corollata*.—A tall species, 2 to 3 feet high, with leaves generally whorled around the upper part of the stem. The upper leaves are margined with white, giving the plant a showy appearance. Flowers grouped in umbels, surrounded by white involucres. Umbels are many times forked, each fork again forked. No stipules. July to August.

Erect but delicate and slender-looking. Sandy, dry soil along the coast southward to Florida, westward to Texas. Ascends to 4,000 feet in North Carolina.

**Common Mallow. Cheeses**

*Málva rotundifólia*.—Family, Mallow. Color, white, with pink or lavender veins, sometimes with a bluish tinge. Calyx of 5 sepals, under which are 3 narrow bracts. Petals, 5, twice the length of the calyx, notched. Stamens united by their filaments into a tube. Styles, several, with their stigmatic surfaces on the inner sides. In fruit they make a "cheese," about 15 carpels being united into a ring, each carpel 1-seeded. Leaves, on long petioles, round, heart-shaped at base, with broadly toothed margins. May to November.

This homely weed, found in all our dooryards, will repay an examination under the magnifying-glass. Stem, 4 to 12 inches long. The althaea and hollyhock are members of this Family.

**Curled Mallow**

*M. críspa*.—In this species the leaves are roundish, wrinkled, and crisped. Flowers, whitish, small, sessile, crowded in the leaf-axils. Leaves on quite long petioles.

An erect, smooth annual, flowering all summer in waste places; ranked as a weed.

**Musk Mallow**

*M. moschata*.—Color, white or a pale pink (see p. 265). For this genus the flowers are large, on short peduncles, crowded on the branches or clustered at the ends of the stems. Petals, much longer than the calyx lobes, inversely heart-shaped, notched on the tip. Leaves, much divided into about 5 segments, these again



SWEET WHITE VIOLET (*Viola blanda*)  
(See page 96)

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cut into long and narrow lobes. Leaves at the root roundish, 3 or 4 inches broad. Summer.

Plant faintly scented of musk.

### White Hibiscus

*Hibiscus oculiroseus*.—Family, Mallow. Color, white, with a deep crimson center. Underneath the calyx are many pointed green bracts. Calyx, 5-cleft. Corolla, of 5 separate large petals. Stamens, collected on a column, which is divided at the summit into 5 styles. Leaves, acute at apex, broad toward the base, ovate, palmately veined. The fruit becomes a large, 5-valved capsule. July to September.

This is similar to the swamp rose mallow so familiar to those who travel over the Hackensack marshes, near Jersey City. The white species grows also in marshes, especially salt marshes near the coast. Massachusetts to Florida.

### Green Violet

*Hybanthus concolor*.—Family, Violet. Color, greenish white. Petals, nearly equal in length, the lower one being larger than the others, swollen at base, notched at apex. Stamens united into a sheath which envelops the ovary. A broad gland is seen on the lower side. Leaves, entire, acute at both ends. Stems, very leafy, 1 to 2 feet high, with 1 to 3 flowers in the axils on short, nodding peduncles. Pod much larger than the flower. April to June.

This homely species, although of the Violet Family, scarcely deserves to be numbered among those favorite flowers. Rich, moist woods, shaded ravines from New York westward and southward.

### Sweet White Violet

*Viola pallens*.—Family, Violet. Sepals and petals, 5, the latter differing in size, the lowest spurred at the base. The side petals usually are hairy, and all are streaked with purplish lines. Leaves obtuse at apex, heart-shaped at base, with petioles. Stem and leaves sometimes dotted with red spots. April and May.

Along brooks and springs from New England to the mountains of South Carolina and westward.

### Lance-leaved Violet

*V. lanceolata*.—Near by, perhaps, grows the lance-leaved violet, also white and sweet-scented. This species produces runners which root at the joints, and bear small, apetalous blossoms (cleistogamous), which pollinate themselves beneath the closed calyx.



WILD SARSAPARILLA (*Aralia nudicaulis*)  
(See page 98)

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Ordinary *flowers* white, larger than the last, the lower and side petals sometimes streaked with purple or crimson. *Leaves*, all from the root, on very long petioles, with lance-shaped blades, finely serrate. April to June.

Erect, 2 to 6 inches high, in wet meadows, bogs, and on banks of streams. Maine to Minnesota and southward.

*V. blanda*.—Upper *petals* long and narrow, twisted backward. *Leaves*, broad, roundish, heart-shaped at base, on long petioles, their midribs often tinted with red. Slender, leafy runners are produced in summer, after the blossoming season is over.

This is one of our smallest violets, and, on account of its faint, sweet scent, one of our dearest. We all know the mossy, damp place in which it can be found in April and May, and one of our earliest spring walks is directed thither. (See illustration, p. 93.)

### Primrose-leaved Violet

*V. primulifolia*.—A white species in which the *petals* or some of them are purple-veined. *Leaves* differ from the two last, being long-petioled, broader than *V. lancolata*, narrower than *V. blanda*, and not heart-shaped. Leaf-blades ovate or oval, running gradually down to the petioles. Found in drier soil, but often preferring moist ground. Leafy runners also grow from this species. April to June.

The above four species belong to the *stemless* violets, in which leaves and flower-scape spring from long, slender rootstocks. New York to Florida.

### Pale or Striped Violet

*V. striata*.—Color, white or cream, with purple lines upon the petals. The *stems* are leafy, heart-shaped at base, on long petioles, the lower having longer petioles than blades, all acute at apex. Prominent stipules much cut and toothed, or fringed. 6 to 18 inches high. April to June.

An early and late bloomer, found in low woods and moist meadows from New England to Georgia.

### Loosestrife

*Lythrum lineare*.—Family, Loosestrife. The flowers of *Lythrum* are *dimorphous*, that is, have *stamens* and *pistils* of different lengths, so that self-pollination is prevented. This is a large and bushy plant, with slender stems, small leaves, and single flowers in the upper axils. *Petals*, 5 to 7. *Calyx*, tubular, 5 to 7-toothed, with little processes between the teeth. *Stamens* joined to the calyx,



DWARF GINSENG, OR GROUND-NUT (*Panax trifolium*)  
(See page 100)

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as many or twice as many as petals. *Leaves*, linear, opposite, sessile, one-ribbed. Summer.

A curious, pale green plant, 2 to 4 feet high, growing on the borders of salt marshes in New Jersey, south to Florida.

### Willow Herb

*Epilobium densum*.—*Family*, Evening Primrose. *Color*, usually pink, but occasionally white. (See Pink Flowers, p. 273.)

### Enchanter's Nightshade

*Circaea lutetiana*.—*Family*, Evening Primrose. *Color*, white or cream. Low perennials, 1 to 2 feet high, with small flowers in terminal and side racemes, each flower composed of 2 petals, a 2-parted, hairy *calyx*, 2 *stamens*, and a 2-celled *ovary*. *Fruit* covered with bristly, hooked hairs. *Leaves*, opposite, sharply pointed at apex, rounded at base, long-petioled, distantly toothed, 3 or 4 inches long, growing smaller toward the top, where they become mere bracts under each flower. *Stem*, swollen at the joints. June to August.

In all our woods, especially those which are open and dry.

### Wild Sarsaparilla

*Aralia nudicaulis*.—*Family*, Ginseng. The root of this plant, although not the officinal root which the soda-fountain clerk uses (officinal meaning that which has commercial value), is sometimes used to flavor summer drinks. A single, long-stalked leaf rises to the height of a foot, divided into oblong, pointed leaflets, 5 leaflets on each of 3 divisions. To the unbotanical eye there are 3 compound leaves, each 5-divided, springing from the stem. Lower down the flowers grow on separate scapes in umbels, 2 to 7 umbels springing from the same center. May and June.

In the autumn these large, handsome leaves, with their dark purple attendant bunches of fruit, are very conspicuous. The roots are several feet long, and spread horizontally. (See illustration, p. 95.)

### Spikenard

*A. racemosa* has very long, large leaves (I have found them 2 or 3 feet across), decomound, with ovate, heart-shaped, pointed leaflets, somewhat downy and toothed. *Flowers* in drooping umbels or racemes, *stamens* and *pistils* in different blossoms. Roots large, spicy, fragrant. July and August.

### Ginseng

*Panax quinquefolium*.—*Family*, Ginseng. *Color* of flowers white, of fruit red. *Flowers*, staminate and pistillate on different



WATER PENNYWORT (*Hydrocotyle umbellata*)  
(See page 100)

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plants. *Leaves*, 3 in a whorl, on a low stem, palmately divided into 5 long-stalked leaflets. July and August.

The members of the Ginseng Family, with their pretty leaves and delicate flowers, are among the choicest finds of the woods. In their botanical features they are not unlike the parsleys, having a short, toothed calyx, 5 petals, 5 stamens, and from 2 to 5 styles. Compound leaves and small white (or greenish) flowers in umbels complete the likeness. But they differ from the rank and often baneful parsleys in one important respect. None of the ginsengs is poisonous. Their roots are aromatic, of pleasant flavor. The ginseng has a stem 1 foot high, bearing above the leaves a simple umbel of white flowers, and later a cluster of bright red, berry-like drupes.

### Dwarf Ginseng, or Ground-nut

*P. trifolium* is often found growing near in the same woods. The ground-nut refers to its root, a small tuber, sweet and edible, sunk deep into the ground, only unearthed after careful, patient digging.

It is a lovely herb, with little balls of blossoms just overtopping a whorl of 3 leaves, each divided into 3 to 5 sessile leaflets, all on the same leaf-stalk. It is a spring flower, coming with the hepatica in April and May, perfecting later a yellowish fruit. (See illustration, p. 97.)

### Water Pennywort

*Hydrocotyle umbellata*.—Family, Parsley. *Flowers*, small, umbelled, pedicelled, white or greenish, from rootstocks creeping in the mud. The leaves are tiny imitations of lily-pads. After flowering, the top of the water where it grows is covered with the specks of white blossoms. *Leaves* orbicular, crenate, small, with the long petiole fastened to the middle underneath. June and July. (See illustration, p. 99.)

*H. verticillata*.—This species has few flowers in umbels, in interrupted spikes. Leaves like the last. June to September.

Massachusetts to Florida and westward.

*H. americana*.—*Flowers*, very small. *Leaves*, kidney-shaped. Sometimes called water ivy. It has small, thread-like stems which creep over wet moss and cling to soft mud. The pretty, shiny, roundish or kidney-shaped leaves, crenately lobed, are



WATER PENNYWORT (*Hydrocotyle americana*)

(See page 100)

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very common in marshy places. The tiny flowers are clustered in the axils. They are nearly stemless. Summer.

The outward resemblance to other genera of the Parsley Family is remote. All these species are sometimes aquatics. The leaves have scale-like stipules. (See illustration, p. 101.)

### Sanicle. Black Snakeroot

*Sanicula marylandica*.—Family, Parsley. Color, greenish white. Small flowers in irregular or compound umbels, a few staminate, without pistils. Fruit, roundish, composed of several prickly carpels. Leaves, palmately, 5 to 7-parted, the divisions toothed, pointed. Root-leaves long-stalked. May to July.

A difficult plant to identify, having but little external appearance of a parsley, the small flowers and prickly fruit making it puzzling. Eastern States to the Rocky Mountains.

### Sweet Cicely

*Osmorhiza Claytoni*.—Family, Parsley. Flowers in umbels, with a few involucral bracts underneath. Leaves, thrice-compound. Leaflets oval, toothed, softly hairy, tapering, 2 or 3 inches long. Plant graceful and delicate in its form and foliage. The root is pleasantly anise-scented. May and June.

Open woods in the Northern States, and in the mountains farther south.

*O. longistylis* has coarser stems than the last, with longer leaflets. Style, long. Fruit, a beaked, roughish capsule. Rich woods.

### Poison Hemlock

*Conium maculatum*.—Family, Parsley. Flowers, white, in umbels. Leaves, large, twice-divided. Leaflets pale green, lance-shaped, cut. Stem spotted and smooth. A tall branching herb whose leaves give forth an unpleasant odor when crushed. Both involucre and involucels present of 3 to 5 bracts.

Northern States, waste places. July.

This plant is the famous hemlock which Socrates was condemned to drink. It was the means often employed in Athens for putting criminals to death. It should be identified to be avoided, for its juices are as deadly to-day as when the great philosopher calmly drank of the fatal cup.

### Mock Bishop's-weed

*Ptilimnium capillaceum*.—Family, Parsley. Flowers in compound umbels. A plant smooth-stemmed and branching, usually



WATER PARSNIP (*Sium cicutaefolium*)  
(See page 104)

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low, 1 foot high, but at times several feet tall. *Leaves*, compound, finely cut into thread-like divisions. *Flower-bracts* cut. June to October.

Its fine, white flowers and hair-like leaves are common among the brackish marshes, wherever the water keeps their roots perpetually moist.

### Water Hemlock or Spotted Cowbane

*Cicuta maculata*.—*Family*, Parsley. This may be known by its purple-streaked stem. It is a large, coarse plant, with white flowers in large umbels. It grows from 2 to 6 feet high. The lower leaves have long stems. They are twice or thrice pinnate, coarsely serrate, heavily veined. August.

The root is a deadly poison, perhaps making it the most dangerous of our native plants. It has been eaten for sweet cicely with fatal consequences.

*C. bulbifera*.—A smaller and slenderer species, 1 to 3 feet high, with leaflets less deeply toothed, and small bulbils growing in clusters upon its upper axils. *Leaves*, 2 to 3-pinnate. July to September.

Common in swamps and wet grounds as far south as Maryland.

### Caraway

*Carum Carvi*.—*Family*, Parsley. *Flowers* in compound, terminal umbels. *Leaves*, compound, some of the leaflets cut into thread-like divisions. May to July.

Escaped from old-fashioned gardens, where it has long been a favorite plant on account of the pleasant taste of the seeds, which are still used in cookies and buns.

The fusiform root is said to be edible.

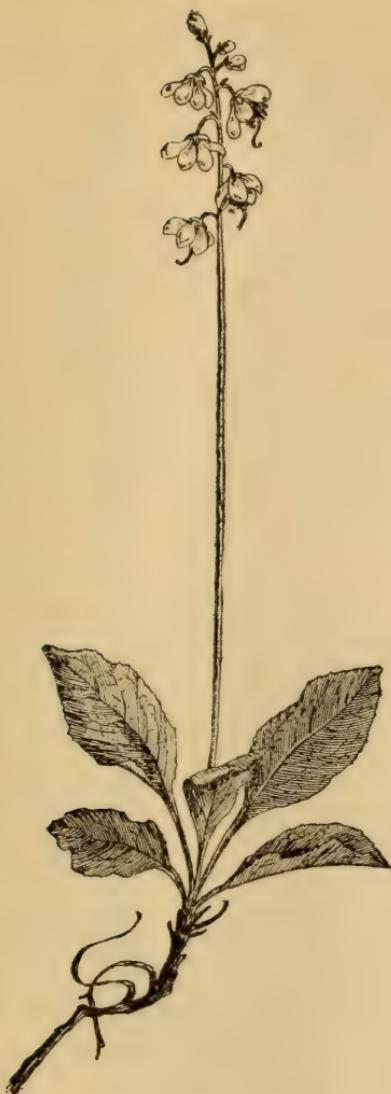
### Berula

*Berula erecta*.—*Family*, Parsley. The umbels of flowers have rather large involucres of narrow bracts underneath. *Leaves*, pinnate, the 5 to 9 pairs of leaflets sharply or obtusely toothed or lobed, 3 inches long or less. An erect stem, rather coarse, 6 to 30 inches high. July and August.

In swamps and along banks of streams from Maine to Michigan and southward.

### Water Parsnip

*Sium cicutaefolium*.—*Family*, Parsley. *Flowers*, as in all of this family, in umbels. *Leaves*, pinnate. *Leaflets*, 3 to 6 pairs, serrate,



SHIN LEAF (*Pyrola elliptica*)

(See page 110)

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sharply pointed; often a terminal leaflet. A variety, *S. Carsonii*, has submerged leaves, aquatic, with 1 to 3 pairs of leaflets, much cut, thin, floating or immersed. *Stem*, tall, 2 to 6 feet high, grooved, angled. July to October.

A poisonous species. Common in wet places. (See illustration, p. 103.)

### Scotch Lovage. Sea Parsley

*Ligusticum scóthicum*.—Family, Parsley. *Flowers*, in large, compound umbels, on pedicels about half an inch long. *Leaves*, fleshy, 3-divided, shining, the leaf-segments toothed, shining. *Stems*, mostly simple, 1 to 3 feet tall. July and August.

Salt marshes along the New England coast.

### Fool's Parsley

*Aethusa Cynàpium*.—Family, Parsley. No involucre, but involucels of long, narrow leaves under the umbelllets of white flowers. *Leaves*, twice or thrice compound, the divisions cleft again and again. Taste, acrid and burning. 12 to 30 inches high. July and August.

A poisonous and ill-smelling annual, naturalized from Europe.

### Cow Parsnip

*Heracleum lanàtum*.—Family, Parsley. *Color*, white or sometimes purplish. Of the umbel, the outer flowers are larger than the others, with inversely heart-shaped petals. Both involucre and involucels of green bracts present. *Leaves*, thrice compound. *Leaflets*, broad, toothed.

A coarse, rough plant, sometimes 8 feet high, with a rank smell about its foliage. In swamps or wet grounds over nearly the whole country.

### Cowbane

*Oxypolis rigidior*.—Family, Parsley. This species has tuber-bearing roots which are poisonous. Its umbels of white flowers appear in August. It is from 2 to 5 feet tall, with pinnate leaves, once cut. *Leaflets*, 3 to 9. An involucre of fine bracts lies under the umbel, and smaller bracts underlie the secondary umbelllets.

A coarse plant of swamps and low grounds. Probably its parts are all more or less poisonous. Found in all the Eastern States.

### Hemlock Parsley

*Conioselinum chinense*.—Family, Parsley. No involucre, but fine, long, thin bracts form an involucel under the umbelllets.



INDIAN PIPE. CORPSE PLANT (*Monotropa uniflora*)  
(See page 110)

## HARPER'S GUIDE TO WILD FLOWERS

*Leaves*, 2 to 3-pinnately compound, thin, the leaflets cut to the midrib. Late blooming, from August to October.

Tall, slender, smooth perennials found in swamps from New England westward, and to the mountains of North Carolina.

### Great Angelica

*Angélica atropurpurea*.—*Family*, Parsley. *Color*, greenish white. *Leaves*, large, twice or thrice ternately divided. *Leaflets* very sharply serrate. Easily known by its stout, dark purple stem. 4 to 6 feet tall. June and July.

Although coarse and large, this plant possesses a certain virile attractiveness. River-banks, brooks, in the Northern States.

### Wild Carrot. Queen's Lace

*Daucus Carota*.—*Family*, Parsley. *Color*, white, except that the central flower of each umbel is defective and purplish. After flowering the umbel becomes concave or nest-shaped. *Leaves*, 2 to 3-pinnately compound. 1 to 3 feet high. Summer.

Too well known to need description. Imported from Europe, it has become a common and most troublesome weed in and about cultivated grounds. In New Jersey whole fields are white with the wild carrot. Were it less common, the soft, fine appearance of the umbels of flowers, together with its prettily cut leaf, might win favor. As it is, the flower painter finds it a pleasant thing to transfer to canvas, but the farmer does not like it.

### One-flowered Pyrola

*Moneses uniflora* (name means "single delight").—*Family*, Heath. *Color*, white or pink (see p. 276). *Sepals* and *petals*, 5, the latter roundish, wide open,  $\frac{1}{2}$  inch across. *Filaments*, awl-shaped, with *anthers* 2-horned. *Stigma*, 5-lobed, quite large. *Leaves*, clustered at the root, round, thin, veiny, pointed, toothed, less than 1 inch long. The *scape* has a scaly bract or two upon it, with a single, nodding flower rising 3 or 4 inches from the underground stem. June and July.

Many dear little plants of the Heath Family may be looked for in our deep, shady woods, but none is more appealing in its small, dainty life than the one-flowered pyrola. To find it is a delight. But let us not remove it from its home. There is too much danger of these interesting plants disappearing from their haunts. In deep, cool woods in the Northern States and in the Rocky Mountains.



TRAILING ARBUTUS (*Epigaea repens*)

(See page 110)

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### Shin Leaf

*Pyrola elliptica*. ("A pear" from fancied resemblance of the foliage to that of a pear tree.)—*Family*, Heath. *Color*, whitish. *Calyx*, 5-parted. *Corolla* of 5 ovate petals. *Stamens*, 10, the anthers inverted and opening by chinks. *Pistil*, 1, with a large curved style, bearing at its apex a 5-divided stigma. *Flowers*, collected in a spike on a scape, with 1 or 2 scaly bracts. *Leaves*, in clusters at the root, ovate, dull, evergreen, thin, with margined petioles. June and July.

One of our pretty lovers of the deep woods, with a rosette of evergreen leaves at the root surrounding a tall scape finished with a raceme of bright flowers. (See illustration, p. 105.)

*P. americana*.—*Calyx*, lobes long and narrow. *Petals*, thick, white, although some varieties of this plant may have pink or flesh-colored tints. *Flowers*, in long racemes, and all have a protruding, upward curving style. *Scapes* taller than the preceding, and *leaves* thicker, roundish, shining, on petioles. Sometimes called wintergreen. June to August.

Open, light woods, in rather sandy soil. Eastern and Northern States as far south as Georgia.

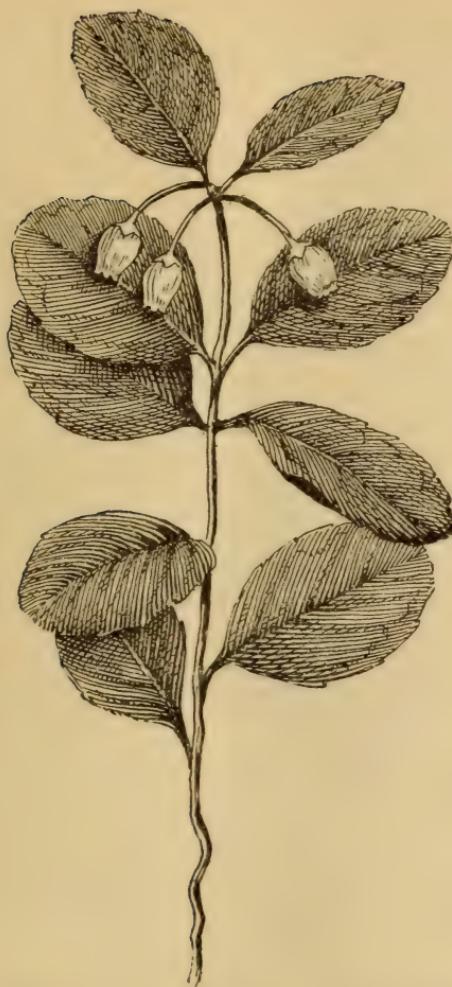
### Indian Pipe. Corpse Plant

*Monotropa uniflora*. ("Turned to one side.")—*Family*, Heath. *Color*, a leaden white. *Leaves*, none. *Calyx*, of 2 to 4, and *corolla*, of 4 or 5, bract-like scales. *Stamens*, 8 or 10, with anthers joined horizontally to the filaments, opening by 2 chinks. *Pistil*, 1, with a thick style, surmounted by a fleshy 4 to 5-rayed stigma. *Fruit*, a capsule filled with very many minute seeds. *Stems*, waxy white, with bracts in place of leaves, all devoid of chlorophyll (green) grains, 3 to 8 inches high, in clusters from a bunch of fibrous roots which are parasitic on the roots of other plants, or saprophytic, growing on decaying vegetable matter. The flowers at first hang down; in fruit, stand erect. June to August.

No odor, and a rather unpleasant plant, clammy to the touch, turning black after being plucked. It has been called "Life in death." (See illustration, p. 107.)

### Trailing Arbutus. Ground Laurel. Mayflower

*Epigaea repens*. ("Upon the earth.")—*Family*, Heath. *Color*, white or pink. *Sepals*, 5, pointed. *Corolla*, tubular, with spreading lobes, hairy inside, purest white to deepest pink. *Flowers*, in



CREEPING WINTERGREEN. CHECKERBERRY  
(*Gaultheria procumbens*)

(See page 112)

## HARPER'S GUIDE TO WILD FLOWERS

clusters in leaf-axils, hidden under the broad protecting leaves. *Stamens*, 10. *Style*, slender, its apex making a ring around the 5 stigmatic lobes. *Leaves*, round, oval, or heart-shaped, thick, evergreen, on petioles. Whole plant trailing, prostrate, with woody stems covered with rusty hairs. April and May.

In open, especially pine woods.

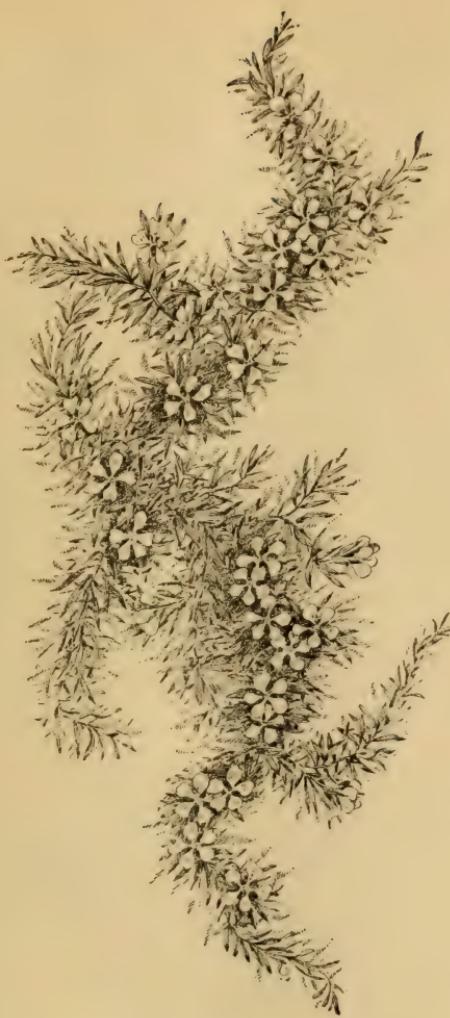
A universal favorite and a candidate for honorable mention as our national flower. We love it because it comes so early and because of its delicious fragrance. It delights in pine woods, which it literally carpets in early spring with delicate, modest bloom. You may dig the snow away from shaded corners and find it bright and sweet, looking at you with almost startled eyes. In places it has been plucked to its total extinction. One trembles to see such flowers exposed in great bunches on our city's streets for sale. Vandal armies of Italian and Irish boys tramp through our woods and pull them up by the roots for a few cents' gain. Nor are they the only ones who threaten the extermination of some of our beautiful native plants. City girls and even botanical classes on their excursions gather more flowers than they need, not being careful to leave the root behind. Will not those who love flowers do what they can for their protection?

The Mayflower is associated, whether correctly or not, with Plymouth Rock and the landing of the Pilgrims. The legend, as beautifully given by Whittier, is that, after their first dreadful winter, this was the first flower to greet the Pilgrims, and that they took courage when they saw so bright a beauty blooming so bravely in poor soil under wintry snows.

Mrs. Sara J. Hale, in her book, *Flora's Interpreter*, makes this astonishing statement: "The trailing arbutus is a sort of strawberry-vine found in New England in March, the earliest of all spring flowers." (See illustration, p. 109.)

### Creeping Wintergreen. Checkerberry

*Gaultheria procumbens*.—Family, Heath. *Color*, white. *Calyx*, 5-parted. *Corolla*, bell-shaped, swollen in the middle, somewhat contracted at the top, with 5 points. *Stamens*, 10, each with 2 round anther cells, opening by a hole at the top. *Fruit*, not strictly a berry, made of the calyx adhering to the ovary and grown fleshy. *Flowers*, 1, or a few, hanging from the axils of the



PYXIE, FLOWERING MOSS. (*Pyxidanthera barbulata*)  
(See page 114)

## HARPER'S GUIDE TO WILD FLOWERS

leaves. Plant stem creeping just under or above the ground. *Leaves*, alternate, oval, thick, evergreen, slightly toothed, petioled. Open woods. July and August.

This is the little, well-known plant whose new, tender, red leaves youngsters delight to chew, and whose aromatic berries sometimes find their way to our grocery stores. Often late in the season the waxen flower-bells and ripening fruit are found together. The essence of wintergreen is a pleasant flavoring, in taste resembling birch. Local names are tea-berry and boxberry. (See illustration, p. 111.)

### Creeping Snowberry. Moxie Plum. Capillaire

*Chiógenes hispídula* (name means "snow offspring," in allusion to the white berries).—*Family*, Heath. *Calyx*, 4-parted; 2 large bractlets underneath. *Corolla*, deeply 4-divided. *Stamens*, 8. *Flowers*, small, nodding in leaf-axils on short peduncles. *Fruit*, a round, white, many-seeded berry, which is slightly acid, of pleasant taste. *Leaves*, evergreen, pointed, with margins rolled back, ovate, less than  $\frac{1}{2}$  inch long, covered on the under surface with reddish bristles. Branches slender, also bristly.

The flowers of this pretty, trailing plant are small and shy, hiding in early spring in leafy corners among moss, in peat-bogs of New York and Pennsylvania, in the cool woods of the Adirondacks and Alleghanies. In summer it grows more bold, and flashes up from among its dark green, shining leaves the round, pure white berries. It is a plant fragrant of birch, belonging with moss, fern, and streamlet, thoroughly wild.

### Pyxie. Flowering Moss

*Pyxidanthèra barbulàta* ("a small box," and "anther," because the anthers open as if by a lid).—*Family*, Diapensia. *Color*, white, or sometimes a pale rose. *Sepals* and *stamens*, 5. *Corolla*, 5-lobed. *Flowers*, small, sessile, many on short, leafy branches. *Leaves*, very small, narrowly lance-shaped, like the leaves of moss plants, somewhat hairy. Pine barrens from New Jersey to North Carolina. April and May.

This moss-like, dear little plant is one of our earliest flowers. It is found in the sandy pines of New Jersey, south to North Carolina, creeping on the ground. Flowers sessile, small, on tiny branches, on which grow the needle-like leaves. Plucked and kept well covered with water, it will retain its freshness many days. It is a great delight to come across the pyxie when yet flowers are few.



BROOK-WEED. WATER PIMPERNEL. (*Samolus floribundus*)  
(See page 116)

## HARPER'S GUIDE TO WILD FLOWERS

### **Featherfoil. Water Violet**

*Hottònia inflàta*.—*Family*, Primrose. *Color*, white or whitish. *Calyx*, of 5 long, narrow divisions. *Corolla*, with short tube, spreading, with a 5-parted border. *Stamens*, 5. *Capsule*, 5-valved, with many seeds. *Leaves*, crowded at the base of the cluster of flower-stalks, very much cut into thread-like segments. *Flowers*, whorled at the swollen joints of stems floating or rooting in mud. *Stems*, often 2 feet long. May to August.

An aquatic, found in pools and shallow ponds, Massachusetts to Florida. This is a curious-looking plant, owing to the thick, hollow peduncles which spring in a cluster from the submerged stem, coming out of the water and bearing at the joints and on their tips whorls of many small flowers. The lowest joint may be 2 inches long and 1 inch thick. They decrease in size toward the top. The leaves under water look like fine ferns.

### **Brook-weed. Water Pimpernel**

*Sámolus floribándus*.—*Family*, Primrose. (“Ancient name of Celtic origin, said to refer to curative properties of this genus in diseases of cattle and swine.”) *Calyx*, 5-cleft. *Corolla*, tubular, 5-divided, with 5 *stamens* standing in the clefts. *Leaves*, entire, inversely ovate, tapering into a short petiole. June to September.

A delicate, white flower growing in racemes on slender, smooth stems, about 6 to 8 inches high. Round pods form below, while the blossoms continue above. Found growing on the edge of, or quite in, water, throughout the United States. (See illustration, p. 115.)

### **Chickweed Wintergreen. Star Flower**

*Trientális americána*.—*Family*, Primrose. *Calyx* and *corolla* mostly 7-parted, sometimes 6. *Leaves*, whorled on the stem, just below the flowers, thin, veiny, lance-shaped, sessile. A few scale-like leaves below. May to July.

A very delicate flower, on small, wiry stems, 2 or more blossoms arising from a whorl of comparatively large leaves. The diminutive, open flower contrasts strikingly with the handsome leaves. (See illustration, p. 117.)

The plant grows by means of a slender rootstock about 2 feet long, from which the flower stem springs. In shaded woods, New England to Virginia and westward.



CHICKWEED WINTERGREEN. STAR FLOWER (*Trientalis americana*)  
(See page 116)

## HARPER'S GUIDE TO WILD FLOWERS

### Pennywort

*Obolaria virginica*.—Family, Gentian. Color, white or purplish. *Calyx* of 2 spreading sepals. *Corolla*, bell-shaped, 4-cleft. *Stamens*, 4 inserted between the divisions of the corolla. *Style*, short with a 2-divided *stigma*. *Fruit*, a capsule whose inner surface is covered with seeds. *Leaves*, reduced to scales on the stem below, but leaf-like under the raceme of flowers, opposite, wedge-shaped. *Stem*, somewhat fleshy, simple, or branched, generally of a purplish color, 3 to 6 inches high. April and May.

A rather curious plant, with thick, roundish leaves, sessile flowers terminating the stem, or about 3 in the axils, found in cool, moist woods from New Jersey southward to Georgia, in mountains of Virginia 2,600 feet high.

### Floating Heart

*Nymphoides lacunosum*.—Family, Gentian. Color, white. *Calyx*, of 5 long, narrow divisions. *Corolla*, with a short tube and spreading, 5-parted border, 5 small glands appearing at the fringed bases of the lobes. *Pedicels* long and slender. *Leaves*, roundish, heart-shaped at base, thick, on thread-like, very long petioles. June to August.

A perennial aquatic, with roots in the mud of shallow waters everywhere in the Eastern States. From the roots in spring arise very long stems bearing a heart-shaped leaf, from the notch of which an umbel of flowers on short pedicels comes up, accompanied by a cluster of elongated tubers or thickish roots. The heart-shaped leaves float on the water.

### Whorled-leaved Milkweed

*Asclepias verticillata*.—Family, Milkweed. Color, greenish white. *Flower*, already described (p. 10). *Leaves*, simple, thread-like, whorled, 3 to 6 together, turned-back margins, 2 or 3 inches long.

This is the most ethereal and exquisite of the milkweeds. I first saw it on the top of Federal Hill, Pompton, New Jersey. It is more common southward. A small umbel of delicate flowers terminates a stem, generally, unbranched. The needle-like leaves give it a delicate appearance. Open, rocky woods, and westward in the prairies.

### Waterleaf

*Hydrophyllum canadense*.—Family, Waterleaf. Color, nearly white. *Calyx*, 5-cleft, minute teeth between the lobes. *Corolla*,

## WHITE GROUP

tubular, 5-lobed. *Flowers*, short-pedicelled, in flat-topped clusters whose peduncles are shorter than the petioles. Plants smooth-stemmed, from rootstocks which are thick and indented by the stout leaf-stalks; 1 foot high. *Leaves*, large, about 4 inches broad, palmately lobed and veined, petioled, heart-shaped at base, irregularly toothed, the root-leaves sometimes with 2 or 3 small side-leaflets. Summer.

New England, westward, and to the mountains of Virginia.

*H. virginianum* is taller, 2 feet high or less, with peduncles longer than the petioles. *Leaves* pinnately cut into 5 to 7 divisions, sharply toothed, oblong to lance-shaped. *Flowers*, white, or with a bluish tinge, appearing through the summer.

*H. macrophyllum* has white *flowers* clustered in a head upon a rough, hairy stem. *Leaves*, oblong, cut into many irregular divisions, all coarsely toothed, the lower ones 8 to 14 inches long. Virginia, southward and westward.

### Spring or Early Scorpion Grass

*Myosotis virginica*.—Family, Borage. *Color*, white. This is the only white species of forget-me-not. We think of the flower as blue, and in the blue section the genus will be more at length described. This species is very bristly and sticky. *Flowers*, small, in one-sided racemes at the top of erect stems, 3 to 15 inches high. *Leaves*, obtuse or oblong, near the base of the stem, quite hairy, almost bristly. April to July.

Dry and rocky woods and hills, Maine to Florida and Texas.

### Common Gromwell

*Lithospermum officinale*. (Name means "stony seed," from the hard, bony nutlets.)—Family, Borage. *Color*, white, with sometimes a yellowish tinge. *Calyx* and *corolla* tubular, with spreading, 5-cleft border, crested or with 5 scales in the throat. *Leaves*, rough above, soft beneath, broadly lance-shaped, thin, tapering at apex, distinctly veined. *Stem*, 2 to 4 feet high, leafy. *Flowers*, in leafy racemes, generally single. May to August.

Perennial herbs, with red roots. Roadsides and waste fields from New York northward and westward.

### Corn Gromwell. Pearl Plant

*L. arvense*.—*Color*, nearly white. The *leaves* of this species are long, lance-shaped, sessile, or short-petioled. *Flowers*, in spikes. May to August.

Dry fields and waste places, Maine to Georgia and westward.

## HARPER'S GUIDE TO WILD FLOWERS

### False Gromwell

*Onosmòdium virginianum*.—Family, Borage. *Color*, a deep cream or yellowish white. *Calyx*, tubular, with 5 narrow divisions above. *Corolla*, tubular, with 5 long, narrow lobes, bristly on the outside. *Stamens*, 5, with somewhat arrow-shaped, pointed anthers. *Pistil*, with a thread-like, projecting style. *Fruit*, a 1-seeded nutlet. *Leaves*, rough, about 2 inches long, narrow, the lower ones tapering at base, sessile. *Stems*, rather slender. Whole plant covered with stiff, short hairs. *Flowers*, in leafy racemes, at first short and close, becoming elongated. May to July.

Maine to Florida and westward. On dry banks or hillsides.

### White Vervain

*Verbèna urticaefòlia*.—Family, Vervain. *Color*, white. *Calyx*, unevenly 5-toothed. *Corolla*, 5-toothed, the lobes spreading. *Stamens*, 4, in pairs, the 2 upper frequently imperfect. *Fruit* splitting into 4 nutlets. *Leaves*, opposite, petioled, toothed, oval, acute. *Flowers*, small, in spikes, rather loose, on stems 3 to 5 feet high.

Dry fields and waste places all over the Eastern States, westward to Texas. Often found growing with the blue vervain.

### Fog-fruit

*Lippia lanceolata*.—Family, Vervain. *Color*, bluish white. *Calyx* and *corolla*, 2-lipped, the upper corolla lip notched, the lower and larger 3-divided. *Leaves*, oblong to ovate, or lance-shaped, toothed above the middle. *Stems*, weak, creeping, with slender peduncles ascending, bearing at their terminals small, roundish heads of small flowers. Stems rooting at the joints in the moist soil of river-banks or brooks. June to August.

New Jersey and Pennsylvania, southward and westward.

### Horehound

*Marrubium vulgare*.—Family, Mint. *Color*, white. In the Mint Family the 5-pointed corolla is 2-lipped, making the upper division of 2 united petals, the lower of 3. The *calyx* is also 2-lipped. The fruit consists of 4 small nutlets. This species is an importation from Europe, and often cultivated for its medicinal effects; the *leaves* are rough, round to ovate, with petioles, toothed. *Flowers* in whorls, many together in the axils. 1 to 3 feet tall. June to August.

Waste fields and dry soil, Maine to Minnesota southward.

## WHITE GROUP

### Catnip

*Népeta Catária*.—Family, Mint. *Color* of corolla, white, dotted with purple. The plant is covered with a great deal of whitish down. *Leaves*, heart-shaped, coarsely toothed, petioled. *Perennial*, 2 to 3 feet high. *Flowers*, whorled in terminal cymes or spikes. Escaped from gardens where it used to be cultivated.

A common weed, near old houses in neglected dooryards.

Catnip-tea is an old-time remedy for colds and fevers. The leaves are greatly liked by pussy.

### Motherwort

*Leonurus Marrubiástrum*.—Family, Mint. *Corolla*, shorter than the sharp *calyx* teeth. Divided as in other mints. *Flowers* in whorls, in the axils of leaves on rough stems, stout, and much branched, 2 to 5 feet high. *Leaves*, very coarsely toothed, with short petioles, ovate, or the upper ones lance-shaped. June to September.

Waste places, New Jersey, Pennsylvania, and Delaware.

### Wild Bergamot

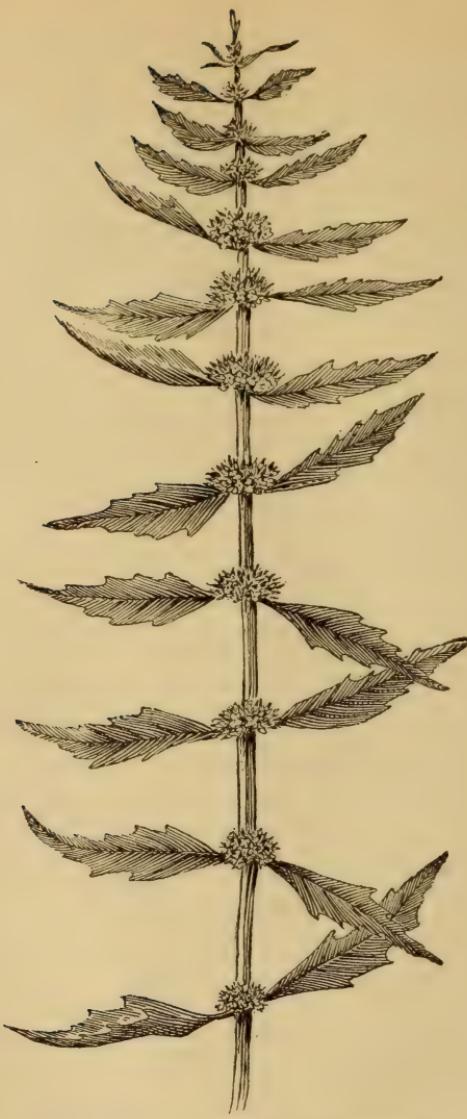
*Monárda fistulósa*.—Family, Mint. *Color*, white or purple (see Purple Flowers, p. 340). *Calyx-tube*, hairy within. *Corolla*, with a long tube (1 inch or more) and 2-lipped border, the upper lip erect, notched, the lower 3-lobed, with the middle lobe narrow and notched. *Stamens*, 2, protruding. *Leaves*, those near the flower colored like the corolla; all ovate, lance-shaped, sharply toothed. July and August.

A rather coarse herb, 4 or 5 feet high, with a minty fragrance about its leaves and flowers. The flower bracts and leaves just under the flower are whitish or crimson.

In different varieties of the wild bergamot the corolla varies in color from a light pink to dark purple. These have a wide range in woods, from Massachusetts and Vermont to Florida and westward.

### Bugle Weed

*Lýcopus virginicus* (a "wolf's foot, from some fancied likeness of the leaves").—Family, Mint. *Color*, white. *Corolla*, nearly equally 4-cleft, bell-shaped. *Calyx*, with 4 acute, short teeth. 2 good *stamens*. *Leaves*, opposite, petioled, the upper sessile, tapering at both ends, regularly toothed, often purple. *Flowers*, very small, in close whorls around the 4-angled, smooth, stiff, upright stem, much shorter than the leaves among which they



BUGLE WEED (*Lycopus virginicus*)  
(See page 121)

## WHITE GROUP

nestle. *Stem*, 20 inches high or less, bearing sometimes from its base thread-like runners with small tubers. July to September.

Rich soil, often in marshes, New England to Florida. (See illustration, p. 122.)

### Water Horehound

*L. sessilifolius*.—This species is much like the last, but may be known by the *corolla*, which is twice as long as the *calyx*, and *leaves* rather broader and coarser, sometimes clasping the stem. Slender runners grow from the base of the stem, which is 8 to 20 inches high. Summer.

Found in the same locality as the bugle weed. Near the coast, Massachusetts to Florida.

*L. americanus* is taller than the last, with oblong leaves about 2 inches long, considerably and narrowly cut, petioled. This species bears no runners, but has white flowers in whorls, like the last. It is 1 to 3 feet high.

### Dittany

*Cunila origanoides*.—*Family*, Mint. *Color*, white or purple (see p. 344). *Calyx*, 5-toothed, hairy within. *Corolla*, 2-lipped, the erect upper lip notched, the lower 3-divided. *Stamens*, with 2 anthers protruding, standing apart. *Fruit*, 4 small nutlets. *Leaves*, opposite (1 inch long or less), smooth, dotted, toothed, with rounded or heart-shaped bases, sessile. August and September.

A much-branched, stiff little plant, often with reddish stems, and flowers in terminal clusters. It has a sweet, minty odor, which it retains when dried. It is not hard to find among the hills from New Jersey to Georgia and westward.

### Field Mint. Corn Mint

*Mentha arvensis*.—*Family*, Mint. *Color*, variable, white, pink, or violet (see p. 289). The genus *Mentha* may be called the true mints. They are all sweet-scented with the mint odor. They are perennial herbs. *Flowers* of this species in whorls in the leaf-axils, none terminal. *Calyx*, softly hairy. *Leaves*, lance-shaped above, becoming broader toward the base, all finely serrate and covered with fine hairs. The odor suggests pennyroyal. Summer.

Common in rich, moist soil, widespread.

### Common Nightshade

*Solanum nigrum*.—*Family*, Nightshade. *Color*, white. *Corolla*, wheel-shaped, 5-parted. *Calyx*, 5-parted. *Flowers*, clustered in

## HARPER'S GUIDE TO WILD FLOWERS

umbels, on nodding peduncles, 3 to 10 growing from the side of the stem. Berries black, round, smooth. *Leaves*, petioled, ovate, wavy, thin. An ill-looking weed found in shady, damp spots, especially in cultivated soil.

The deadly nightshade is an English plant with bright-red berries, not found here. The tomato, egg-plant, and capsicum, also the Irish potato, belong to this Family, which contains, besides these useful and edible plants, many that are very poisonous. The berry of the potato is said to be poisonous.

### Jimson or Jamestown Weed. Thorn Apple

*Datura Stramonium*.—Family, Nightshade. *Color*, white. *Calyx*, 5-toothed, the upper part falling away in fruit. *Corolla*, 3 inches long, funnel-form, the border 5-toothed. *Stamens*, 5. *Fruit*, a prickly 2-celled capsule. *Flowers* on peduncles growing in the forks of the branching stems. *Leaves*, large, ovate, toothed.

Too well known to need much description. Large, coarse, rank plants, often found in barnyards and around old door-yards. They are narcotic, poisonous, and ill-smelling. Flowers showy, resembling a morning glory, on short peduncles, growing where the stem branches or forks.

### Moth Mullein

*Verbascum Blattaria*.—Family, Figwort. *Color*, yellow, or in one variety (*albiflorum*) white, with a purplish stain in the center (see p. 204). *Calyx*, 5-parted. *Corolla*, 5-lobed, open in maturity, its lobes reflexed. *Stamens*, 5, their filaments fringed with purple wool. *Leaves*, those below petioled, deeply cut, oblong; those above clasping, oblong, or lyre-shaped. Summer.

Dry fields, roadsides, waste places, over the Eastern States. This plant has not the extreme woolliness of, and there is nothing in its appearance that should indicate its near relation to, the common mullein. It is low and smooth, with flowers almost nodding and loosely spiky, making some pretensions to prettiness.

### White Mullein

*V. Lychnitis* is a rarer species, with white or yellow *flowers* in a tall panicle (see p. 204). *Leaves*, greenish above, woolly beneath, ovate, not clasping, pointed.

The whole plant is covered with a soft, whitish woolliness,

## WHITE GROUP

### Snapdragon

*Antirrhinum Orontium*.—Family, Figwort. *Color*, purple or white (see p. 346). *Calyx* and *corolla* tubular, 5-parted, the corolla with a plaited border. *Stamens*, 4. *Leaves*, long and narrow. *Flowers* in axillary racemes.

The corolla is a type of many members of this Family, 2-lipped, the lips meeting and closing the throat of the tube. By pressing the thumb and finger on the sides of the flower it may be made to open and shut like an animal's mouth. Dry fields, dumping-grounds. Not common.

*A. majus*.—*Color*, white, blue, or purple (see p. 346). Often escaped from gardens. The parent of many cultivated varieties.

### Balmony. Snakehead. Turtlehead

*Chelone glabra*.—Family, Figwort. *Color*, white, often with a pink or purplish tinge. *Calyx*, of 5 sepals. The mouth of the inflated, tubular *corolla* is a little open, the upper lip being swollen as if humpbacked. Looking into the throat, it is seen to be woolly-bearded, having 4 stamens which have woolly filaments and tiny heart-shaped anthers. A fifth but sterile stamen is present. *Leaves*, opposite, sessile, or with short petioles, broad below, narrower above, sharply serrate. In wet places, as edges of swamps or banks of ponds or streams. July to September.

This plant grows often very high, usually 2 to 3 feet. Stem and leaves smooth. Flowers occupy the ends of branches, crowded together, the lower in blossom while the upper are in bud. It takes a lively imagination to invest the innocent corolla with reptile-like features. (See illustration, p. 126.)

### Mudwort

*Limosella aquatica*, var. *tenuifolia*.—Family, Figwort. *Color*, white or a light crimson (see p. 291). *Calyx* and *corolla* bell-shaped, 5-parted, with 4 stamens inserted on the corolla. *Leaves*, like pine-needles, fleshy, very slight distinction between blade and petiole. *Flowers*, single, on leafless stems.

Plants rooted in mud, very small, spreading by stolons which also root at intervals in the mud. Muddy banks of rivers and streams, the leaves clustered at the root, around the single-flowered peduncles. Near the coast as far south as New Jersey.



BALMONY. SNAKEHEAD. TURTLEHEAD. (*Chelone glabra*)  
(See page 125)

## WHITE GROUP

### Hedge Hyssop

*Graziola virginiana*.—Family, Figwort. *Color*, white and yellow (see p. 206). Two-lipped *corolla*, with a tube yellowish within, and lighter, nearly white, lobes. The lower lip 3-cleft, the upper 2. *Calyx*, separated into 5 narrow, unequal, long divisions. Underneath are leaf-like, small bracts. *Leaves*, opposite, sessile, long, narrow, acute at both ends.

Low, light green, softly clammy plants in wet, sandy soil. The stems often lie upon the ground, branched, with flowers of the snapdragon type prominent, on long peduncles.

### Culver's-root. Culver's Physic

*Veronica virginica*.—Family, Figwort. *Color*, white or whitish. *Calyx*, 4 or 5-parted. *Corolla*, tubular, with wheel-shaped, short border, 4 or 5-cleft. *Stamens*, 2, one at each side of the upper lobes of the corolla, standing out from the flower. *Flowers*, in terminal, spiked panicles, stiff, upright, 3 to 6 feet high. *Leaves*, 4 to 7, whorled around the stem, lance-shaped, with short petioles, finely toothed. Rich, moist woods or fields from Massachusetts southward. July and August.

It is not apparent why this tall, noticeable plant of the woods should be connected with "Culver." Who was Culver? Perhaps a quack doctor, who found secret healing virtues in the root of this plant. I find no recognition of his services elsewhere in botanical or medical works, and no other floral monument to his memory.

### Neckweed. Purslane Speedwell

*V. peregrina*.—*Color*, whitish. Wheel-shaped *corolla* shorter than the *calyx*, open, spreading. *Flowers*, short-pedicelled or sessile in axils of the upper small leaves. *Fruit*, a nearly round capsule, notched at apex. *Leaves*, the lower pair nearly 1 inch long, broader than those higher up on the stem, which are alternate, small, lance-shaped.

An annual, a weed in moist ground in all the Eastern States.

### Eyebright

*Euphrasia Oakesii* (name means "cheerfulness").—Family, Figwort. *Color*, white, with a yellow center, the "eye," and purplish veins (see Variegated Flowers, p. 374). *Calyx*, tubular, bell-shape, 4-cleft. *Corolla*, 2-lipped, the upper lip with 2 broad, spreading lobes under which the 4 *stamens* arise. Lower lip 3-cleft; all the lobes notched. *Leaves*, those among the flowers bristly-toothed;

## HARPER'S GUIDE TO WILD FLOWERS

those on the stem, lower down, opposite, cut, or deeply toothed. ovate, or lance-shaped.

A very small plant of local growth, with at least its musical name to recommend it. Flowers in short spikes. Along the coast of Maine, among the White Mountains in stony, sterile ground.

### Cleavers. Goose Grass

*Gàlum Áparine*.—Family, Madder. Color, white. Calyx, tubular, without teeth. Corolla, 4-lobed, wheel-shaped. Stamens, 4. Styles, 2. Leaves, commonly 6 or 8 in a whorl, linear or inversely lance-shaped, quite long, very rough and bristly on the edges and midrib. Flowers, 1 to 3, in cymes, in the upper axils of the leaves. Stems, rough, weak, climbing by means of hooked bristles over other plants, 2 to 5 feet long, hairy at the joints. Along the coast, in rich soil or shady grounds, from Maine to Florida. May to September.

The galiums are interesting little plants, in that, although weak, they are aggressive and flourish better than some others by nature more independent and erect.

### Northern Bedstraw

*G. boreàle*.—Flowers, in panicles, the stem growing erect, 1 to 3 feet high. Leaves, in whorls of fours, linear, 3-nerved, smooth along the margins. May to August.

Rocky woods or moist banks and shores.

### Marsh Bedstraw

*G. palùstre*.—Flowers, small, in terminal and lateral cymes, on spreading pedicels. Leaves, in pairs or fours, linear, with considerable distance between the joints. Stem, smooth, erect, a foot or more high. Corolla, for this genus, large, white. June and July.

In low, wet meadows along roadsides where it is springy, from Connecticut northward and westward.

### Sweet-scented Bedstraw

*G. triflòrum*.—Color, greenish or greenish white (see p. 36).

### Small Bedstraw

*G. trifidum*.—Corolla-lobes and stamens, 3 or more. Styles 2. Flowers, solitary or, when they terminate the branches, in threes. Variable. July to September.

The fruit, as in all the galiums, is a pair of dry seed-vessels, joined at first, separating when ripe into distinct

## WHITE GROUP

carpels. The square stems are weak, 5 to 20 inches high. They are covered with bristles turning downward, and by this means the plant attaches itself to and lifts itself over other vegetation, often forming dense tangles. A persistent grower, and a plant that may be met with in almost any swampy ground.

### Rough Bedstraw

*G. asprellum*.—This species has a stronger stem than the last, with many hooked bristles by which it climbs over bushes. The leaves, whorled, 4 to 6 upon stem and branches, are oval or lance-shaped. They often terminate in a prickle. Flower-stems forked 2 or 3 times.

Banks of streams in all the Eastern States.

### Button-weed

*Diòdia tères* (name means "a thoroughfare," from the habit of many species to appear by the wayside).—Family, Madder. Color, white. Flower parts in fours. An insignificant herb, generally rough or hairy-stemmed, with small, whitish flowers about  $\frac{1}{4}$  inch long, with funnel-form corollas. Flowers, 1 to 3, in the leaf-axils. Stem, softly hairy, 3 to 9 inches long. Leaves, opposite, long, lance-shaped, stemless, stiff, rigid, with membranaceous, bristly stipules connecting the leaves. Summer.

Sandy soil along waysides from New Jersey to Florida and Texas.

### Partridge Berry

*Mitchélla rēpens* (name refers to Dr. John Mitchell, a botanist of the time of Linnaeus).—Family, Madder. Color, white, sometimes with a pink tinge. Calyx, 4-toothed. Corolla, tubular, 4-lobed. Stamens, 4. Stigmas, 4, long, on a single style. The flowers are close together, in pairs, their calyx-tubes later cohering and making a double fruit, crowned with 8 teeth, filled with hard nutlets. The pink-tipped flowers appear early in summer, and the scarlet fruit lasts into the snowy season. Leaves, small, roundish, shining, evergreen, on short petioles. June and July.

A favorite plant growing only in woods, especially pine, matted, with trailing stems on the ground, loving best to nestle at the foot of trees. The flower is delicately fragrant, and the fruit makes food for the birds which spend their winter with us. Eastern States and southward.

### Bluets. Innocence

*Houstonia caerulea*.—Family, Madder. Color, a bluish white, with a pale-yellow center. Calyx, very short, 4-lobed, forming

## HARPER'S GUIDE TO WILD FLOWERS

a tiny cup to hold the tubular *corolla*, with its 4 spreading lobes, barely  $\frac{1}{2}$  inch across. *Stamens*, 4. *Style*, 1. *Leaves*, small, blunt, wide at apex, narrowing to base, opposite, entire. April to July.

Delicate flowers of spring, 2 to 5 inches high, growing in bunches from slender creeping stems or rootstocks. The pale blue corolla, with its bright eye, dots many meadows with tiny stars. Two pretty, common names are Quaker-lady, Quaker-bonnets. Moist or dry fields and meadows along the coast and westward. Some pastures are seen thickly covered with these quaint little flowers, giving them a pale, bluish-white tint.

### Clustered Bluets

*Oldenlandia uniflora*.—Family, Madder. *Color*, white. *Corolla*, wheel-shaped, with 4 lobes shorter than the calyx. *Calyx*, 4-lobed. *Stamens*, 4. *Style*, often none, but 2 sessile *stigmas*. Parts of the *flower* sometimes in fives. *Leaves*, opposite, oblong or ovate, sessile, with stipules united to the petioles.

Annual, with smooth, branched stem less than a foot high, with many flowers clustered in the leaf-axils. Near the coast in wet ground from New York to Florida and westward.

### Twin-flower

*Linnaea borealis* (named from Linnaeus).—Family, Honeysuckle. *Color*, whitish, tinged with deep crimson or purple (see Pink Flowers, p. 292).

### Thoroughwort

*Eupatorium leucolepis*.—Family, Composite. *Color*, white. *Flowers*, in heads, about 5, making a grayish corymb, with bracts. *Pappus*, hair-like bristles standing in a single row. *Leaves*, opposite, sessile, rough, long, narrow, finely serrate. Late summer.

Common in sandy bogs and marshes from Long Island southward. A rough, coarse, uninteresting plant.

### Hyssop-leaved Thoroughwort

*E. hyssopifolium*.—*Color*, dirty white. *Leaves*, narrow, long, crowded and bunched at intervals along the stem, almost whorled in appearance. August and September.

A common, plebeian plant with the typical flowers in close, flat heads. Growing in sandy, sterile soil on Long Island southward to Virginia and Kentucky. Height, 1 to 2 feet. The flower has neither beauty of color nor fragrance. (See illustration, p. 131.)



HYSSOP-LEAVED THOROUGHWORT (*Eupatorium hyssopifolium*)  
(See page 130)

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### Boneset

*E. perfoliatum*.—*Color*, white. *Leaves*, opposite, clasping, often joined at base so as to make the stem appear to pass through them, serrate, much wrinkled. Summer.

A well-known plant formerly much used as tea for medicinal purposes by home practitioners. Flowers in large corymbs. 2 to 4 feet high. Low grounds, widely diffused.

*E. verbenaefolium*.—*Leaves*, large, veiny, ovate or lance-shaped, cut or coarsely toothed near the base. The lower often in threes, upper alternate.

Near the coast in low or swampy grounds.

### Upland Boneset

*E. sessilifolium*.—About 5 feet high. A smooth, soft plant, with soft, downy compound corymbs of flowers. *Leaves*, opposite, or 3 in a whorl, tapering from a rounded, broad base to a point; sessile, toothed, very veiny, 3 to 6 inches long. Late summer and fall.

Among the mountains and in thickets from Massachusetts to Illinois and southward.

### White Snakeroot

*E. urticaefolium*.—*Color*, white. *Leaves*, opposite, long-petioled, with sharp teeth, pointed, broad near the base, thin. *Flowers*, in compound corymbs. Late summer.

A handsome plant, 2 to 3 feet high, spreading, branching. Its pure white flowers and long-petioled, thin leaves mass finely in the woods. Rich, moist woods, not far from the coast.

*E. aromaticum* is similar to the last, with *leaves* rather thick, on short petioles, *flowers* in large corymbs.

In rich woods near the coast, Massachusetts and Connecticut to Florida.

### Kuhnia

*Kuhnia eupatorioides*.—*Family*, Composite. *Color*, cream white. *Leaves*, alternate, entire, or sometimes toothed, lance-shaped to very narrow and long. September.

A plant with minute down, variable in height and outline of leaves. Resembling the thoroughworts. *Flowers* in heads of panicled corymbs. Dry, sandy soil, New Jersey southward and westward to eastern Kansas.



SILVER-ROD (*Solidago bicolor*)

(See page 134)

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### Silver-rod

*Solidago bicolor*. — *Family*, Composite. *Color*, cream white. This is the only white golden-rod, although a variety of *Virgaurea* is found near the White Mountains with rays so pale as to be almost white. The bicolor is usually taken for an aster. The flowers grow in clusters, making short or, at times, rather long interrupted racemes upon the wand-like, softly hairy stems. *Leaves*, oblong, pointed at both ends, the lower ones with short petioles, the upper sessile, serrate. August to October.

In dry soil along paths and roadsides through open woods in the Eastern States. (See illustration, p. 133.)

### Aster

The asters—distinguished, often handsome, members of the Composite Family—seldom bloom before August. They are essentially a fall flower, mingling their bright purple or blue or white rays tastefully with the golden-rods and sunflowers. They grow with us everywhere, and being, with few exceptions, perennials, reappear year after year in their own chosen haunts. The disks are yellow, sometimes turning to brown or purple. Asters grow upon the stems and branches variously, sometimes in close bunches, or in corymbs or loose panicles. Many species are subject to great variations, and they run into one another. They vary in size from small buttons to a silver half-dollar. The name means a star.

*Aster macrophyllus*. — *Family*, Composite. *Color*, white, or sometimes with a bluish tinge. There are many white asters, and some of those of a blue or purple color vary to white. By attention to stem, leaves, and locality, most of them can be classified. This species has a stout stem, 2 or 3 feet high. *Leaves*, rough, serrate, the lower with long petioles, heart-shaped, very long and broad. Upper sessile or with short petioles. Heads of flowers in large, firm corymbs.

Open woods and thickets.

### White Heath Aster

*A. ericoides* bears tiny white flowers, becoming pinkish, with fine, almost hair-like rays, and yellow, compact disks. It might be a small daisy. *Leaves*, small, narrow, the lower broader and somewhat toothed. *Stems*, slender and wiry, from 1 to 3 feet



MICHAELMAS DAISY (*Aster Tradescanti*)

(See page 136)

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high. Branches spreading and bearing flowers upon the upper side. October.

An early and late flowering aster, being one of those found in dry, open woods. From Connecticut and Rhode Island southward and westward.

### Dense-flowered Aster

*A. multiflorus*.—A bushy plant, with stiff, spreading branches, very leafy. 1 to 7 feet tall. *Flowers*, crowded, terminating the main and side branches. *Leaves*, small, bract-like above, sessile, thick, rigid, mostly pointing upward, rough on the edges. August to October.

Sandy soil in open fields and roadsides from Maine to Georgia and westward.

### Calico Aster

*A. lateriflorus*.—Color, white or pale purple (see p. 477). *Leaves*, long, broad below, narrow above, toothed in the middle, pointed at both ends. The lower leaves with short petioles, the upper sessile.

One of the smaller asters. Common and variable. Several varieties are enumerated, known by small or large leaves. It is a much branched, hairy species, and the blossoms are crowded upon one side of short branchlets. Dry, open places, common in all the Eastern States.

### Michaelmas Daisy

*A. Tradescanti*.—Color, white, sometimes tinged with pink. *Leaves*, lance-shaped upon the upper branches, sharply pointed above, sessile where joined to the stem. Those below are broader, but linear, about 3 to 6 inches long. Heads of *flowers* numerous, racemose on the branches, sometimes the terminal one being a little larger than the others. *Stem*, smooth and slender. August to October.

A softly blooming species found in low or moist grounds, even in swamps, from Maine to Virginia and westward. (See illustration, p. 135.)

### Panicled Aster

*A. paniculatus*.—Color, white, but sometimes pale violet. The smooth *stem* of this species reaches a height of 7 or 8 feet, and is therefore one of our tallest. *Leaves*, long, narrow, sharply but distantly serrate, sessile, those below clasping the stem; those



DAISY FLEABANE (*Erigeron annuus*)  
(See page 138)

## HARPER'S GUIDE TO WILD FLOWERS

above with smooth margins, variable as to shape. *Flowers* not so crowded as in some species, rather large.

A bushy and coarse-stemmed plant. Common as far south as Virginia in low, rather wet grounds.

### Umbelled Aster

*A. umbellatus*.—*Color*, white, sometimes with a suggestion of pink. *Rays* rather few. *Flowers*, grouped in compound, flat corymbs, small. *Leaves*, tapering at both ends, smooth margined or slightly serrate. Lower leaves 6 inches long. *Stem*, tall, leafy to the top, 7 feet or less.

In moist soil along roadsides. Varieties of this aster are found westward and southward from New Jersey and Pennsylvania.

### Whorled or Mountain Aster

*A. acuminatus*.—*Color*, white or purplish. The *stem* of this aster is slender, single, branched, softly hairy, more or less zig-zag and bent, 1 to 3 feet high. *Flowers*, with long, narrow rays, about 15 in number, the heads numerous, on the ends of branches. *Leaves*, thin, oblong or lance-shaped, very pointed above, tapering below, sharply toothed, often appearing whorled near the top. June to September.

Moist woods as far south as Pennsylvania, farther south in the mountains.

### Daisy Fleabane. Sweet Scabious

*Erigeron annuus*.—*Family*, Composite. *Color*, white, with a purplish tinge. These are flowers, sometimes weeds, much like the asters, but with finer, softer, more numerous rays. Annual, 1 to 4 feet high, with softly hairy, stout-branched *stem* bearing the rather large flowers in loose corymbs near the ends of the branches. *Leaves*, coarse and large below, toothed, ovate, on a margined petiole. Those above ovate or linear, becoming at length bracts. May to November.

In dry fields West and South. (See illustration, p. 137.)

### Daisy Fleabane

*E. ramosus*.—This may be known from the last by its generally entire *leaves*, which, with the *stem*, are almost smooth. Upper leaves scattered, lance-shaped; lower, broader. Heads with longer white rays than the last. June to October.

Fleabanes, when dried and hung inside the house, were once considered poisonous to insects. Fields, common as far south as Virginia.



WHITE-TOPPED ASTER (*Seriocarpus asteroides*)  
(See page 140)

**Horse-weed. Butter-weed**

*E. canadensis*.—*Color*, white. *Leaves*, long and narrow, those from the root lobed. *Stem*, straight, slender, covered with bristly hairs. Heads of *flowers* in panicles, the rays having a cut-off appearance. July to October.

A coarse, ugly weed, in waste places everywhere.

**White-topped Aster**

*Seriocarpus asteroides*.—*Family*, Composite. *Color*, white, with a pale yellow center. Disk and ray flowers present. The *flowers* grow in flat-topped clusters on plants 1 to 3 feet high. *Leaves*, serrate or smooth, thin, sessile, upper ones very much reduced, linear, generally hairy. July to September.

A common and conspicuous plant found on borders of thickets and woods and along roadsides in dry, sandy soil. Maine to Florida and westward. (See illustration, p. 139.)

*S. linifolius*.—*Color*, white. *Stem*, firm and smooth, marked with fine lines, corymbosely branched, bearing numerous *flowers* with few rays above a bell-shaped involucre. *Leaves*, long and narrow, with rough edges, mostly sessile. The pappus of these two species is silky, white. June to September.

In dry soil, fields and thickets eastward and southward.

**Plantain-leaved Everlasting**

*Antennaria plantaginifolia*.—*Family*, Composite. *Color*, cream or dull white. *Leaves*, all silky and soft, those at root clustered and spreading, inversely ovate, rounded at apex, 3-nerved, petioled; those on the flower-stems linear, pointed, sessile, green above, white and densely woolly beneath. The fertile and sterile flowers grow in separate plants, generally near one another, the pistillate being smooth, soft, cottony-downy. *Styles*, red. Staminate flowers have more color, and a dotted appearance. April to June.

An early, pretty spring flower found in rocky, barren fields and woods everywhere. Low, 3 to 18 inches high, spreading by offsets and runners. (See illustration, p. 141.)

**Pearly Everlasting**

*Anaphalis margaritacea*.—*Family*, Composite. *Color*, white. *Stamens* and *pistils* in different flowers. *Flowers*, all tubular in clusters at the summit of cottony stems, mixed with many leaves. The scales which surround the flowers are obtuse, very white, standing out straight and stiff. *Leaves*, long, narrow, without

WHITE GROUP



PLANTAIN-LEAVED EVERLASTING (*Antennaria plantaginifolia*)  
(See page 140)

petioles, sharp-pointed, covered with a soft, silky down, green above. July and August.

On hills and in dry woods. Common in the more Northern States. These flowers retain their shape and color when dried.

**Common Everlasting**

*Gnaphàlium polycéphalum* (name means "wool").—*Family*, Composite. *Color*, whitish. Staminate and pistillate flowers in the same heads all surrounded by dry, white scales, which are sometimes tinged with brown, the outer woolly. *Flowers*, in panicled corymbs. *Leaves*, oblong or linear, clustered at the base of the stem and numerous on the stem and branches, those on the flowering branches very small and narrow. July to September.

Open and dry fields and waste places. The rosettes of leaves at base of stem often remain through the winter.

**Clammy Everlasting. Winged Cudweed**

*G. decúrrens*.—*Color* of flowers, white, with yellowish scales underneath. *Leaves*, linear, lance-shaped, slightly clasping, running down on the stem. 2 to 3 feet high, woolly, fragrant. July to September.

Open clearings, dry or wet soil. A stout, erect, very woolly plant, the flowers, with their dry and scarious scales, clustered in dense, flat-topped masses.

From Mr. Gibson we learn that a species of butterfly ("Hunter's") with orange, black, and rose colored wings, selects this plant from which to hang its cocoon, made of the petals of the flowers woven together with its own silk. He says: "If we take a walk in the grassy road, in the pasture-lot, or mountain-path, we may now (September 22d) find dozens of them. Yonder is a clump of the everlasting among the sweet-ferns. It is white with blossoms, and some of them seem fraying out in the wind. Our bower-builder is certainly there—perhaps a dozen of them. Ah, yes, here is our bower dangling from the top of the stem and blowing in the breeze."

**Low or Marsh Cudweed**

*G. uliginòsum*.—*Color*, white. *Flowers*, in roundish heads surrounded by many leaves, some of which are longer than the flowers. Involucre dry and papery. *Leaves*, without petioles, long, narrow, pointed. Whole plant woolly. Low, 4 to 6 inches high.

Found in damp soil along roadsides and in ditches. Not very common. Dyed blue or red, the everlasting were once favorites for winter decorations, and in company with dried grasses made some parlors hideous. They have also, made into wreaths, been a funeral flower.

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### Purple Cudweed

*G. purpureum*.—*Color* of flowers white, but the involucre of bracts underneath is purplish, more prominent than the disk flowers. *Flowers* grow in a terminal, often interrupted, more or less leafy spike. *Stem*, wand-like, simple, stiff and erect, covered with a dense wool. *Leaves*, narrow above, pointed, clustered at the base where they are broader, narrowed into petioles. Whole plant woolly with white down.

Dry, sandy soil of wide distribution along the Eastern coast. 6 to 20 inches high.

### Galinsoga

*Galinsoga parviflora*.—*Family*, Composite. *Color* of ray flowers white, of disk yellow. *Flowers*, small, terminating the branches and in the axils. *Leaves*, thin, ovate, toothed, with petioles. June to November.

A weed found plentifully in the back yards of city and country homes. Also in waste places everywhere. It is weak-stemmed, inclined to be procumbent, from a few inches to 2 feet in height. The pappus is of fringed or bristle-tipped scales. Smooth and odorless.

### Yarrow. Milfoil

*Achillea millefolium*.—(Named after Achilles, who is said to have discovered its healing qualities). *Family*, Composite. *Color*, white, sometimes with a pink tinge. *Leaves*, twice pinnately divided into sections which are 3 to 5-cleft. Rays of flower, 5 to 10. The small *flowers* grow in flat, stiff, hard corymbs, 3 or 4 inches across. The *stems* are simple, stout, covered with the dissected, tansy-like leaves. Not unpleasantly scented. August.

A discouraging weed, which, once introduced into a lawn, is almost impossible to eradicate. Yarrow tea has had a reputation in many countries among some people for medicinal virtues.

### May-weed. Dog Fennel

*Anthemis Cótula*.—*Family*, Composite. *Color*, white rays and yellow disks. Both ray and disk flowers present. This is the *maruta* of older editions, a common, daisy-like plant found on sandy roads and places. It has an evil smell of camomile mingled with tansy. *Leaves*, thrice-dissected into very fine segments. No pappus. Summer.

Plant small, generally seen along roadsides covered with dust.

## HARPER'S GUIDE TO WILD FLOWERS

### White-weed. Ox-eye Daisy. White Daisy. Marguerite

*Chrysanthemum Leucanthemum*.—Family, Composite. Color, white rays and yellow disks. Leaves, cut or toothed, those below with long petioles, spatulate; those above oblong, pinnatifid. June to August.

Fields. Not so common southward. The wonder is that so simple a flower can carry so long a name. This is the common white daisy, dear to city maidens, abhorred by cultivators of the soil. It has come from Europe, and is a weed most persistent, aggressive. Not pleasant smelling, but undoubtedly, when massed in big vases, a pretty thing. The feverfew and marguerite of the gardens are refined types of this weed. The English daisy is pink, "crimson-tipped," as Burns says, and is a near relative of the white-weed.

### Fireweed

*Erechtites hieracifolia*.—Family, Composite. Color, greenish white. Leaves, lance-shaped or oblong, toothed, sessile, those above having eared bases. August and September.

A coarse plant with grooved stem and leaves of various shapes and sizes, growing tall (6 feet or less) and erect. The heads of flowers are flat or elongated in their arrangement, and the seeds give rise to many large, soft, fine hairs. This plant springs up in vast numbers over burned districts, filling the air with its white, filmy, cobwebby pappus when the seed is ripe. This is caught everywhere on fences and trees, blocking window-screens and dusting clothing. There is no beauty in the plant, and it has a rank, disagreeable odor.

### Great Indian Plantain. Wild Collard

*Cacalia reniformis*.—Family, Composite. Color, white. Flowers, all tubular, with no marginal rays, collected in flat clusters. Involucrum of about 5 bracts in a single row, making a cylindrical cup. Leaves, the lower large and broad, 1 to 2 feet across, kidney-shaped, with petioles; upper fan-shaped, distinctly toothed, all thin, green on both sides. August.

A plant 4 to 9 feet tall, with a stout, grooved, or angled stem. Rich, moist woods from New Jersey southward.

### Pale Indian Plantain

*C. atriplicifolia*.—Color, white. Stem, stout, smooth, round, 3 to 6 feet high. Leaves, palmately veined and cut, sometimes 6



WHITE LETTUCE. RATTLESNAKE-ROOT. (*Prenanthes alba*)

(See page 146)

## HARPER'S GUIDE TO WILD FLOWERS

inches across, the lower ones with petioles, the upper sessile, smaller, triangular, square at the base. Late summer.

New Jersey southward and westward. In rich woods and prairies.

*C. suaveolens*.—This is a plant of lower growth (highest 5 feet), with triangular-shaped, pointed, toothed leaves, the stem leaves with winged petioles. August and September.

A rare growth of rich woods from Connecticut west and south.

### White Lettuce. Rattlesnake-root

*Prenánthes álba*.—Family, Composite. Color, white or cream. Pappus and involucral scales brown or purplish. Flowers, 5 to 18 in a head, hanging on short pedicels, corymbosely paniced at the ends of branches. Leaves, triangular in general outline, with ear-like lobes at their bases, 3 to 5-cleft, toothed, the upper entire, oblong. Late summer into September.

Rich woods and thickets, and all shady grounds from Maine to Georgia and westward. A smooth, coarse plant with milky juice, variable leaves which are large below and small above, 3 or 4 feet high. The heads of bell-like flowers hang close to the purplish stem in terminal panicles. (See illustration, p. 145.)

### Wild Lettuce

*P. altissima*.—Color, cream or yellowish white. Flowers, in loose, terminal, and axillary panicles, with leaves interspersed; 5 involucral scales surround the flower. Tall, 5 to 7 feet. Leaves, with petioles, sometimes winged, variously divided, cut, or toothed, ovate, triangular, or heart-shaped, or 3 to 5-lobed, the divisions cleft. Late July or August to October.

Cool, moist, shady woods, Maine to Georgia westward to Tennessee.

### Lion's-foot. Gall-of-the-earth

*P. serpentaria*.—Color, greenish white or cream, sometimes purplish (see p. 370). In this species, which is variable in color, the heads of flowers are crowded at the tips of long branches. Involucre is bell-shaped, of green or purplish bracts. Pappus white or light brown. Leaves, the lower with margined petioles, all variously cut or lobed, the segments being generally rounded at the tips, thickish. Stem, purplish, smooth. September and October.

Near the coast from Massachusetts to Florida and Alabama. The tubers of this genus are very bitter to the taste, whence the common name, gall-of-the-earth.

## CHAPTER V

### YELLOW, PALE YELLOW, ORANGE

#### Golden Club

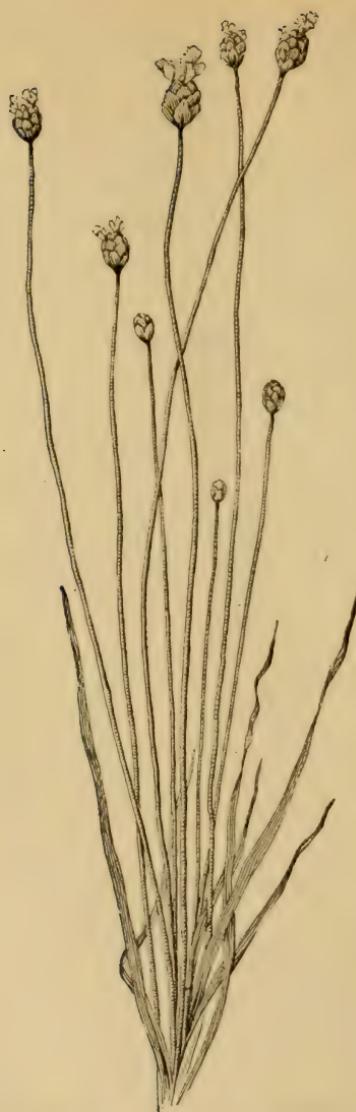
*Orontium aquatum*.—Family, Arum. Color, yellow. A scape 1 foot or so tall rises out of the water terminated by a narrow leafless spadix of rich yellow color, covered with small, perfect, yellow flowers. The lower flowers contain 6 sepals and stamens, the upper, 4 of each. The spathe which incloses the very young spadix, after a time, becomes bract-like, imperfect, remaining merely as a sheath at the base of the scape, or it wholly drops off. Leaves, lance-shaped or oblong, on long petioles, varying with the depth of the water, dark green and velvet-like above, pale underneath, all from root. Floating on top of the water. Scape reaches beyond the flowering spadix. May.

An aquatic perennial. Massachusetts to Florida, in ponds and sluggish streams not far from the coast.

#### Yellow-eyed Grass

*Xyris flexuosa*.—Family, Yellow-eyed Grass. Color, yellow. Flowers, attended by a bract, crowded into a cone-like, small head. Sepals and petals, 3. Stamens, 3 fertile, 3 sterile alternating with the fertile. Style, 3-cleft. Leaves, grass-like, twisted. Summer.

In the sandy marshes, with cranberry, sundew, and marsh St. John's-wort, the little yellow dots of xyris are everywhere. It rises tall, a foot or more, with a somewhat flattened stem, bearing at the top a small, brownish, nearly round head of scales. If we call it a tiny pine-cone, no bigger than a small pea, we give it as the naked eye sees it. From the top of this cone, or a little to one side, spring 1, 2, or 3 flowers, each showing just 3 wide-open golden petals. There are also 3 small sepals, one larger than the others, fringed with short hairs. The stem, and often the leaves, are twisted. Botanically the little cone is a head of bracts,



YELLOW-EYED GRASS (*Xyris flexuosa*)  
(See page 147)

## YELLOW GROUP

from within each of which a blossom may spring. The flower withers very soon after picking. Massachusetts to South Carolina and westward. (See illustration, p. 148.)

### Fringed Yellow-eyed Grass

*X. fimbriata* is a larger and taller species, 2 feet high, with a more flattened, stouter stem, and a head of bracts over half an inch, sometimes an inch, long. In this the lateral sepals are fringed and project beyond the bracts.

Found in New Jersey pine barrens, southward to Florida.

### Carolina Yellow-eyed Grass

*X. caroliniana* sends up scapes 1 to 2 feet tall, slender, twisted or straight. Leaves, linear, quite long. Head of flowers about  $\frac{1}{2}$  inch long.

Found along the Atlantic States and in Pennsylvania.

*X. arenicola*. — Leaves, long, narrow, twisted, from a broad, thickened base which is covered with thick, brown scales, the remains of older leaves. Sepals, fringed, not so long as in the last species. Flowers, in a long, narrow head.

In pine barrens, New Jersey south and west to Florida and Mississippi.

### Water Star-grass

*Heteranthera dubia*. — Family, Pickerel-weed. Color, pale yellow. An aquatic herb, with flowers, 1 or 2 from a spathe which is partly covered by the sheathing base of a petiole. Perianth, a long, thread-like tube, parted above into 6 long, narrow divisions. Stamens, with arrow-shaped anthers, their filaments enlarged below. Leaves, grass-like, sessile, translucent, submerged. The flowers reach the surface of the water on slender, branching stems, 2 to 3 feet long. July to October.

Rooted in mud, in shallow, still water.

### Bog Asphodel

*Narthecium americanum*. — Family, Lily. Color, yellow. Leaves, linear, one arising out of another, like those of iris, very narrow, about 7-nerved; those above, quite small. June to September.

From the sword-shaped, grass-like leaves a straight stem arises, a foot to 18 inches high, bearing at the top a dense raceme of small, greenish-yellow flowers, each with 6 narrow similar sepals, 6 woolly stamens, and a sessile stigma. Bracts attend the flowers. A rather pretty bog herb found in pine barrens of New Jersey, Pennsylvania, to Virginia.

## HARPER'S GUIDE TO WILD FLOWERS

### Bellwort

*Uvularia perfoliata*.—(Name from *uvula*, meaning palate, from the position of the flower under the leaves). *Family*, Lily. *Color*, pale or dull yellow. *Stems*, from 8 to 20 inches high, slender, springing from a perennial rootstock. The ascending branch divides, bearing a drooping, solitary, bell-shaped flower which hangs from a long (1-inch) peduncle, at first terminal, but becoming lateral as the branch grows beyond it. *Divisions of perianth*, 6, long, narrow, spreading at the top, roughish within. *Stamens*, 6. *Ovary*, 3-lobed. *Leaves*, oblong or oval, pointed at apex, roundish at the base, through which the stem passes. May and June.

Rich, moist woods from Massachusetts southward. Found 3,500 feet high in mountains of Virginia. A pretty flower of the spring.

### Large-flowered Bellwort

*U. grandiflora*.—*Color*, yellow. A larger species than the last, the bell-shaped flower being from one to one and a half inches long. *Stem*, forking, with 1 or 2 leaves below the fork. *Leaves*, narrower than the last, but like them perfoliate, the stem passing through them, oblong, oval, or egg-shaped, pointed. April to June.

In moist, rich woods over a wide range in the Atlantic States.

### Mountain Bellwort

*Oakesia puberula*.—*Family*, Lily. This and the next species may be separated from the *Uvularias* by the *leaves*, which are sessile but not perfoliate. *Flower*, single, about 1 inch long, from a slender peduncle, the *perianth* divided into 6 segments, spreading above. The *stem* forks, is rather stout, and slightly hairy and rough. *Leaves* rounded at base, pointed at apex. May and June.

In mountainous woods, Virginia to South Carolina.

*O. sessilifolia*.—This species rarely bears true leaves below the fork in the stem, but one or two reduced to scales. *Leaves*, lance-shaped, acute at both ends. *Flowers*, like the last. May and June.

Common from New England to Georgia.

### Day Lily

*Hemerocallis fulva*.—*Family*, Lily. *Color*, deep yellow. *Leaves*, long, linear, tapering to a point. The *flower scape*, generally longer than the leaves, 3 to 6 feet high, bears several large *flowers*



WILD ORANGE-RED LILY. WOOD LILY. (*Lilium philadelphicum*)  
(See page 152)

## HARPER'S GUIDE TO WILD FLOWERS

in a panicle. The 3 outer divisions of the *perianth* are flat, the 3 inner obtuse, wavy.

This lily has left the old gardens, escaped to roadsides and fence-corners, where it leads a Bohemian sort of life. It grows tall, and bears several blossoms, short-pedicelled, with small bracts. *Stamens* large and prominent. The blossoms last a day only, and then wither.

The yellow, sweet-scented lily (*H. flava*) should also be noticed as occasionally escaping from cultivation into a wild state.

### Tiger Lily

*Lilium tigrinum*.—A garden species, tall, 2 to 5 feet, stout-stemmed, leafy to the base, often found in the fence-corners and along roadsides, growing wild. The *stem* is nearly black or dark purple, bearing black bulbils in the upper leaf-axils, which sometimes throw out rootlets. *Leaves*, lance-shaped, with prominent ribs and entire outlines, alternate. *Flowers*, often numerous, large, drooping, with orange-spotted, turned-back sepals. It has 1 long *pistil* and 6 *stamens*, projecting and spreading.

### Wild Orange-red Lily. Wood Lily

*L. philadelphicum*.—*Family*, Lily. *Color*, deep, reddish orange, with darker, brownish-red spots inside. *Flowers*, 1 to 3, more often single, erect, the 6 equal segments of the perianth narrowed into claws, spreading but not drooping backward. *Stamens*, 6, prominent, with anthers hung in the middle. *Style*, long, showing above the stamens, with, when ripe, a 3-lobed stigma. *Capsules*, large, 2 inches long, filled with many seeds. *Leaves*, long, narrow, whorled on the stem or scattered below. A simple, stout *stem* arises from a scaly bulb, bearing the flowers in June and July.

In dry, open woods, or along the borders of thickets in sandy soil. A strikingly handsome lily, 3 or 4 inches long, of fine, rich color, making solid pretensions to elegance. Every one who sees it growing in the woods is seized with an intense desire to pick the entire stem, often dragging up the bulb—a sure way to exterminate this queen of the woods. (See illustration, p. 151.)

### Turk's-cap Lily

*L. supérbum*.—*Color*, dark orange, spotted with red. *Perianth* of 6 segments, rolled back. *Stamens*, 6, with linear anthers lightly attached at their middle to slender filaments. *Style*, thick, bearing a 3-lobed stigma. *Flowers*, nodding, arranged in rows, one



TURK'S-CAP LILY (*Lilium superbum*)

(See page 152)

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row above another, making a pyramid of from 2 to 40 blossoms. July and August.

A stalk 7 to 8 feet high, crowned with many rows of these large, bright lilies, is one of the handsomest gifts of the flower kingdom. Neither is it chary of its charms, for it blooms in the low meadows, along the roadside, in thickets, rearing its beautiful pyramids where the clethra grows, near the border of a marsh or shaded stream, wherever the soil is moist. New England to Virginia and westward. (See illustration, p. 153.)

### Wild Yellow Lily. Canada Lily. Meadow Lily

*L. canadense*.—Color, yellow, dotted with brown. Leaves, rough on margins and veins underneath, lance-shaped, or somewhat oblong, in whorls of 4 to 10 around the stem. Height, 3 to 5 feet. Flowers about  $2\frac{1}{2}$  inches long, the *sepals* curving backward. The *stamens*, as in all our lilies, have prominent brown anthers, which dust the bodies of big bees with pollen when they sip the nectar from the bells. *Stigma*, large and 3-divided. June and July.

This is pre-eminently the field lily, and the only one of our wild lilies which is of a golden yellow color. Like the Turk's-cap, it nods on its stem, but unlike that, which rears a pyramid of many rich blossoms, this hangs out a single golden bell, or at most two or three lilies, on its flower-bearing stalk.

In the fields, low-lying and moist, or sometimes in swamps, where this flower appears in profusion, the golden color most charmingly tints the entire meadows. Perhaps a few of the red lilies may keep it company, but for the most part these prefer a drier and shadier locality. Nova Scotia, south to Georgia, west to Missouri.

### Dog's-tooth Violet. Yellow Adder's-tongue

*Erythronium americanum*.—Family, Lily. Color, light yellow. *Perianth* divisions 6, separate, narrow, longer than the 6 *stamens*, of a light yellow color, sometimes spotted at the base. *Flowers*, single, bell-shaped, on long peduncles. *Style*, club-shaped with united stigmas. *Stem*, 1 foot high or less. *Leaves*, 2, long, narrow, usually mottled with white or purplish spots, sometimes wholly green, contracted below into petioles which surround the stem. March to May.

Deep, cool, moist woods, New England to Florida and westward. A low, smooth plant, often growing in masses



YELLOW ADDER'S-TONGUE (*Erythronium americanum*)  
(See page 154)

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or beds in moist, rich woods. The pretty flowers close at night and open mornings. On warm, sunny days the perianth segments curve backward. (See illustration, p. 155.)

### Yellow Clintonia

*Clintonia borealis*.—Family, Lily. Color, cream or greenish yellow. Leaves, 2, 3, or 4, sheathing the base of the flower-stem, oval or oblong, pointed, parallel-veined, hairy. A pretty plant, with leaves like lily of the valley, and stem 6 to 15 inches high, bearing on its summit an umbel of 3 to 6 open, spreading, bell-shaped flowers, each on a slender stalk, which points upward in fruit. Alternating with the sepals, fastened to their base, are the 6 conspicuous stamens. The fruit is a blue berry, nearly round. Middle of May into June.

An interesting, uncommon-looking plant, whose delicate flowers strongly contrast with its ample leaves.

### Small Solomon's Seal

*Polygonatum biflorum*.—Family, Lily. Color, greenish yellow. Leaves, alternate, broad, ovate, narrow at base, acute at apex, nearly sessile, parallel-veined; 2 to 4 inches long, pale green, softly hairy along the veins beneath. Flowers, cylindrical, bell-shaped, perianth 6-divided at the summit. They hang under the stem, mostly in pairs, sometimes in threes, small as compared with the protecting, overhanging leaves. May to July.

An interesting spring flower, growing from a jointed root-stock, which is scarred or sealed where the former upright growths have fallen off. The flower-bearing stem (2 or 3 feet high) curves gracefully, and, in fall, displays round, bluish-black berries. In dry woods, on hillsides, in thickets, New England to Florida.

### Great Solomon's Seal

*P. commutatum*.—Color, greenish yellow. A smooth plant, 1 to 8 feet high, the stem rather slender, bearing leaves and flowers above, naked below. Peduncles, 2 to 8-flowered, jointed below the flowers, all from a creeping, broad rootstock. Flowers, elongated, bell-shaped, in pairs, hanging from the stem below the leaves, producing blue-black berries in September. Leaves, clasping or sessile, many-nerved, broad, acute or rounded at apex. May to July.

In moist woods or on river-banks, Rhode Island to Georgia. Not so common as the preceding species.

## YELLOW GROUP

### Indian Cucumber-root

*Medéola virginiana*.—Family, Lily. Color, greenish yellow. Perianth of 3 sepals and 3 petals, alike, turned backward. Styles, 3, very peculiar - looking, stigmatic along the upper side, long, thread-like, purple, bent away from the ovary. Stamens, 6. Flowers, in an umbel near the top, on long peduncles. Leaves, in 2 whorls, one near the middle of the stem, of 5 to 9 ovate or long and narrow, pointed, thin leaves; the other just under the flowers, like an involucre, of 3 to 5, shorter, all parallel-veined. Perennial herb, with simple stem rising 12 to 30 inches high from a white tuber, whose taste is a little like that of the cucumber. In fall, dark purple, conspicuous berries are produced. May and June.

In rich, moist woods from New England to Florida and westward. Ascends in mountains of Virginia nearly 3,000 feet.

### Red-root

*Lacnánthes tinctòria*.—Family, Bloodwort. Color, dingy yellow. Perianth of 3 sepals and 3 petals. Stamens, 3, opposite the inner divisions of the perianth. Filaments and style long, thread-like, bending outward, the style especially prominent. Leaves, long, sword-shaped, those clustered at base shorter than the flowering stem, those above bract - like. Flowers grow in woolly, dense cymes or broad panicles, on pedicels, terminating a hairy stem. Fibrous root red. July to September.

Sandy swamps and pine barrens near the Atlantic coast from Massachusetts to Florida.

### Star Grass

*Hypóxis hirsúta*.—Family, Amaryllis. Color, yellow. Perianth, 6-parted, greenish, rough, hairy on the outside, yellow within. Stamens, 6. Root, a small bulb. The bright, star-like blossoms grow, 1 to 3 or 4, on a scape less than a foot high. Leaves, grass-like, stiff, hairy, longer than the flower-stem.

In meadows and borders of woods, Maine to Florida. (See illustration, p. 158.)

This is not a grass, as its common name would seem to imply. In connection with this flower I recall an incident of a botanical excursion. Rev. Thomas Morong, an eminent botanist, now deceased, was the teacher and guide. Among the excursionists were some amateur botanists who knew the flowers only by their common names. One of these young ladies found the *hypoxis*, and called it "yellow star-grass."



STAR-GRASS (*Hypoxis hirsuta*)  
(See page 157)

## YELLOW GROUP

"It is not a grass at all," said the professor. "It is *Hypoxis erecta*."<sup>1</sup>

Said another, "I suppose we may call its cousin, the flower so nearly like it, 'blue-eyed grass'?" "You certainly may not," the professor answered, impatiently. "That is also not in any sense a grass. It is *Sisyrinchium augustifolium*, a member of the Iris Family. These two flowers have no relation to each other. The *hypoxis* is an amaryllis. Why do people learn these common names, which are often so misleading, when it is just as easy to associate a plant with its only true name?"

### Blackberry Lily

*Belamcanda chinensis*.—Family, Iris. Color, deep-orange yellow. Leaves, like those of iris, 8 to 10 inches long, folded. Above are thin, dry bracts. July to September.

It was while walking on one of the roads in Suffern, New York, that I first found this strikingly handsome flower growing to a height of 3 or 4 feet, with the sword-shaped leaves of the flower-de-luce, the stem crowned with small lily-like blossoms. I nevertheless perceived that it was not a lily. An enlarged central column came up through the ovary, and, the outside covering falling away, the round, juicy seeds clung to this receptacle and formed a very clever imitation of a blackberry. The 6 divisions of the flower perianth are deeply and regularly cut nearly to the base of the flower-tube, spreading and turning somewhat backward. After flowering they twist together and remain withered above the ovary. They are of a deep-orange tint, speckled with purplish, irregular spots. Originally from China, here and there escaped from gardens, from southern New York to Georgia and westward.

### Smaller Yellow Lady's Slipper

*Cypripedium parviflorum*.—Family, Orchis. Color, bright yellow, with a tinge of purple or purplish stripes or spots upon the petals, which are often twisted. Perianth divisions longer than the lip, which is yellow. Stem, 2 feet high, leafy. This has a subtle, rare fragrance. May to July.

In swamps or bogs northward, and in the mountains of Virginia.

<sup>1</sup> Now named *H. hirsuta*.

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Var. *pubescens* (Larger Lady's Slipper) differs in being a larger flower with stem about the same height, 1 to 2 feet. *Lip*, a greenish yellow, striped with purple, *Sepals*, lance-shaped, long, twisted, lip much swollen. *Leaves*, oval, pointed, quite broad, those under the flower linear.

### Twayblade

*Listera convallarioides* rises from a cluster of fibrous roots 4 to 10 inches high, with 2 broad, roundish leaves near the center of the scape. 1 or 2 small scales near the base. *Flowers*, greenish yellow, on thread-like pedicels attended by a tiny bract, in loose racemes, 3 to 12 in a spike. *Lip* much longer than the *sepals* and *petals*, double-lobed at the apex, generally with 2 sharp, ear-like projections at the base. Summer.

From Vermont southward to North Carolina; found in the Southern States among the mountains.

### Southern Twayblade

*L. australis* bears very small greenish-yellow flowers with purple stripes. The narrow *lip* is  $\frac{1}{2}$  inch long, slit nearly its entire length. *Leaves*, ovate, sessile, a pair attached just above the middle of the scape. Rarely a third leaf occurs near the raceme of flowers. *Scape*, 4 to 10 inches high.

In wet woods or bogs from New York to Florida.

### Whorled Pogonia

*Pogonia verticillata*.—Family, Orchis. *Color* of sepals a dark purple, of petals greenish yellow. *Lip*, 3-divided, crested, expanded above, not much larger than the other two petals. *Sepals*, 2 inches long, thread-like. *Flower*, upon a long peduncle, solitary, terminating a *stem*, which is 10 to 12 inches high. *Leaves*, under the flower, in a whorl, pointed, sessile. No leaves lower down, but small bracts. *Root* of several small tubers. May and June.

Moist woods, Ontario to Wisconsin southward to Florida. Rare in northern New England, but not infrequent in Massachusetts and Connecticut. One of the curious orchids resembling an insect; a happy find to the explorer of cool, damp woods. (See illustration, p. 161.)

### Smaller Whorled Pogonia

*P. affinis*.—*Color*, greenish yellow. *Flowers*, generally in pairs, on *scapes*, 5 or 6 inches high, which bear a whorl of 5 leaves at the summit. Above this whorl of leaves thick, somewhat hairy peduncles stand, the flower-stems, which later produce a rather



WHORLED POGONIA (*Pogonia verticillata*)

(See page 160)

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large capsule. *Lip*, crested. *Sepals* and *petals* of nearly equal size.

Moist woods, Vermont and Massachusetts to New Jersey and Pennsylvania. So rare as not to be very well understood.

### Yellow Fringed Orchis

*Habenaria ciliaris*.—Family, Orchis. Color, orange yellow. *Sepals*, round, longer than the long, narrow *petals*, the latter toothed at apex. *Lip*, heavily fringed from apex to beyond the middle, oblong in shape. *Spur*, long, slender. *Flowers*, large, handsome, in close spikes, on short peduncles, with many floral bracts. *Leaves*, upper, bract-like; lower, linear, narrow, 4 to 8 inches long, acute. July and August.

It is an elegant and stately flower, not common, found in peat bogs and wet meadows from Vermont to Florida and westward.

### Purslane

*Portulaca oleracea*.—Family, Purslane. Color, yellow. *Calyx*, 2-cleft, the *sepals* keeled. *Corolla* of 5 petals inserted on the calyx, opening only on sunny mornings, soon falling. *Stamens*, 7 to 12. *Style*, 1, but deeply 5 to 6-parted. *Pod*, round, opening by a lid hinged on one side, called a *pyxis*, disclosing numerous seeds neatly arranged within. *Leaves*, thick, fleshy, roundish, entire, scattered. Whole plant very smooth. In cultivated ground. A weed.

This persistent weed lies flat on the ground. The farmer, when he wants a strong comparison, says, "As mean as pusley." His wife does not disdain to use its succulent stem and leaves for an insipid and mucilaginous table vegetable. The leaves of this plant turn upward at night, two of them clinging together when they are opposite.

### Yellow Pond Lily. Cow Lily.

*Nymphaea advena*.—Family, Water Lily. Color, yellow, sometimes with a purple tinge. *Sepals*, 6, greenish yellow. *Petals*, numerous, stouter than and passing into the stamens. The conspicuous yellow or light-red *stigma* is many rayed. *Leaves* seldom submerged, more often floating, thick, deeply cleft at their base, 1 foot long. Summer.

This plant is a coarse imitation of the water lily. It is common, sometimes found in the same waters with the white water lily. The fruit ripens above the surface of the water. Without fragrance.

## YELLOW GROUP

*N. microphylla*.—This is a slender-stemmed species, with some leaves thin, roundish, or kidney-shaped, submerged; others floating, which are larger, broadly elliptical. *Flowers*, with yellow *petals* and red *stigmas*.

In ponds, New England to Pennsylvania and westward.

### Yellow Nelumbo. Sacred Bean. Water Chinquapin

*Nelumbo lutea*.—Family, Water Lily. *Color*, yellow. *Leaves*, growing well out of water, large, 18 to 20 inches across, roundish, sinking in the center, where the stalk joins the blade. *Sepals* and *petals*, like those of the water lily. Summer.

The flower is from 1 to 5 inches in diameter, scentless, growing, as do the leaves, on tall stems, from a rootstock. The numerous pistils are hidden in a concave receptacle, and they produce bean-like, eatable seeds. The plant also produces edible tubers. Found in a few ponds in southern Connecticut, westward and southward; rare in the Middle States. Dr. Gray says, probably introduced by Indians.

### Seaside Crowfoot

*Ranunculus Cymbalaria*.—Family, Crowfoot. *Color*, yellow. *Petals*, 5 to 8, surrounding a head of achenes. The *flowers* are borne upon low *scapes*, either solitary or several, 1 to 6 inches high. A nectar-bearing pit and scale are found at the base of each petal, as in nearly all buttercups. *Leaves*, clustered at the root, round or heart-shaped, with wavy margins, long-petioled, somewhat fleshy. They also grow on the joints of runners, by which the plant propagates itself. June to August.

This plant may grow quite in water, and upon the banks of lakes and slow-moving streams from Maine to New Jersey. Also found beside the Great Lakes, and inland, in alkaline soil.

### Yellow Water Crowfoot

*R. delphinifolius*.—*Color*, bright yellow. *Petals*, 5 to 8, much larger than the 5 *sepals*, with a small scale at the base. *Leaves*, immersed in water or floating on the top, cut into thread-like divisions. The upper leaves are less divided than the lower, and the leaflets are variously shaped, toothed and lobed.

A perennial by means of runners which root at their joints. The achenes are compressed into a roundish head, each one tipped with a straight, pointed beak. Often several feet long. An aquatic found in still or slow-moving waters from Maine to North Carolina and westward. A

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variety *terrestris*, grows in mud, with leaves firmer, not so much dissected, and with smaller flowers.

### Water Plantain Spearwort

*R. laxicaulis*.—*Color*, deep yellow. *Sepals*, 5, very small. *Petals*, small, 5 to 7. They fall easily. *Stamens*, indefinite. *Pistils*, numerous, in a small, round head. *Leaves*, 4 to 5 inches long, narrow or oblong, distantly toothed, on long, half-clasping petioles. *Stems*, ascending, sometimes rooting from the lower joints.

A smooth plant with flowers much like buttercups. Maine to Georgia and westward. In muddy places, swamps, etc.

### Low Spearwort

*R. pusillus*.—*Color*, pale yellow. A small, weak-stemmed plant, growing from 6 to 20 inches high. *Flowers*, minute, with yellowish petals. *Leaves*, small,  $\frac{1}{2}$  inch long, roundish or heart-shaped, the upper ones inclining to linear. April to September.

This modest spearwort will escape our notice, hidden under larger and more aggressive growths as it is, unless we are determined to find every treasure which the marshy ground contains. Near the coast, New York to Florida.

### Cursed Crowfoot. Ditch Crowfoot

*R. sceleratus*.—*Color*, pale greenish yellow. *Sepals*, 5. *Petals*, 5, small, inconspicuous, not longer than the sepals. *Leaves*, thickish; those from the root roundish, 3-lobed, with petioles; those on the lower stem 3-divided, the roundish lobes irregularly cut; those above with long and narrow, uncut lobes, sessile. *Stem*, hollow, thick, containing an acrid juice which blisters the mouth. June and July.

About 1 foot high. In wet places, as thickets and bogs. Common in the Eastern States.

### Small-flowered Crowfoot

*R. abortivus* ("a little frog," referring to the aquatic habits of some species).—*Family*, Crowfoot. *Color*, pale yellow. *Leaves*, from the root, of 2 kinds, all with long petioles. Those appearing first, roundish, kidney-shaped, with rounded teeth; the later are 3-lobed. *Stem-leaves* divided mostly into threes, the divisions toothed. *Sepals*, 5, turned back. *Petals*, 5, inconspicuous, shorter than the sepals. *Flower*, small, on a smooth, erect, and branching stem, growing 2 feet high or less. April to June.

It is fond of wet places near small streams.

## YELLOW GROUP

### Hooked Crowfoot

*R. recurvatus*.—*Color*, pale yellow. *Sepals* and *petals*, 5, pointed, the sepals reflexed, longer than the petals. *Fruit*, a cluster of achenes armed with a long, recurved hook, whence the common name. *Stem*, hairy, 1 to 2 feet long, strong, woody. *Flowers*, pani-cled in the leaf-axils. *Leaves*, with long petioles, the lower ones large, all 3-cleft, more or less toothed toward the apex. May and June.

Open woods, common in New England States and southward. Not especially pretty.

### Early Crowfoot

*R. fascicularis*.—*Color*, bright yellow. *Sepals*, 5. *Petals*, 5, 6, or 7, much larger than the sepals. The first root-leaves are roundish, 3-parted, toothed. Later ones have a central stalked lobe larger than the lateral segments, all much divided or parted. Upper stem-leaves linear, undivided. Plant very leafy and silky, with soft, white hairs. Roots clustered, thick, fleshy, giving the specific name. 6 to 12 inches high. April and May.

Hillsides and open woods, common. Low, bright, and pretty, a companion to violets and anemones, being similar and related to our common buttercups.

### Swamp Buttercup

*R. septentrionalis*.—*Color*, yellow. *Petals*, larger than the sepals. Most of the stems ascend, but some lie upon the ground and produce runners. *Leaves*, 3-divided, the divisions irregularly cut, the leaflets stalked or sessile. Achenes beaked. 1 to 3 feet high. May to August.

Wet meadows and low grounds.

### Creeping Buttercup

*R. repens*.—This is much like the last in *flowers* and *leaves*. The latter are often variegated with white spots. It is probably an introduced species, but is quite common in wet meadows and low grounds, seemingly indigenous westward. It is of a creeping habit. Flowers one inch across.

### Bristly Crowfoot

*R. pennsylvanicus*.—The *flowers* of this species are small, with the 5 *sepals* turned back. The head of achenes is long, cylindrical. *Leaves*, divided into threes, the divisions stalked and irregularly cut or toothed. *Stem*, stout, erect, beset with bristly hairs. June to August.

In wet ditches, low grounds, and meadows from Maine to Georgia and westward.

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### Bulbous Crowfoot or Buttercup

*R. bulbosus*.—*Color*, a deep satiny yellow. *Flowers*, 1 inch across. The *petals*, 5, 6, or 7, are round and open widely. *Sepals*, turn back. *Leaves*, mostly from the root, 3-divided, on long petioles. The terminal lobe has a stalk; the two side divisions are sessile, all much cleft and toothed. *Stem-leaves* small, somewhat cut. *Stem*, erect, 6 to 18 inches high, hairy, expanding at the base into a bulbous shape. May to July.

Very common and abundant in fields, growing with the daisy, and associated with it in bouquets. This is the buttercup to most people. It is a weed, imported from Europe, and troublesome to farmers.

### Tall Crowfoot or Buttercup

*R. àcris*.—*Sepals*, not turned back. *Petals*, longer than the sepals, not so deep a yellow as the last. *Flowers*, large and showy. *Leaves*, from the root, 3-divided, the divisions 3-cleft, sessile, all deeply toothed. Lower leaves tufted at the root, on long, hairy petioles; upper scattered on the stem, with short petioles or none, 3-parted. *Stem*, rough, hairy, 2 or 3 feet high. May to September.

Common in Canada and the Eastern States. The stem and leaves contain a peculiarly acrid juice. If they are bitten into, the tongue and lips will be blistered in a painful manner. Beggars use the juice to produce sores upon their skin. Children picking them with moist hands will be troubled with an irritating eruption. Cattle refuse to eat them, hence they flourish in great numbers. When dried in hay the acrid properties disappear. An undesirable importation from Europe. In England buttercups are called kingcups, goldcups, butter-flowers, and blister-flowers.

### Marsh Marigold

*Cáltha palústris*.—*Family*, Crowfoot. *Color*, yellow. *Petals*, none. *Calyx*, petal-like of 5 to 9 golden-yellow, broad, roundish sepals. *Stamens*, many. *Pistils*, 5 to 10, making many-seeded pods. *Styles*, mostly wanting. *Stems*, hollow and furrowed, 1 to 2 feet high, weak, ascending. *Leaves*, mostly from the root, but a few on the flower-stem. All large, rounded or kidney-shaped, on fleshy petioles. April to June.

Low, small, thickish herbs, among our earliest flowers to appear. Under the incorrect name of cowslip these plants



MARSH MARIGOLD (*Caltha palustris*)

(See page 166)

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are eaten as "greens," and they make a wholesome and agreeable dish. The true cowslip is a species of primrose. *Caltha* means golden cup, a suitable name for this bright, pretty spring flower that borders our marshes with gold. In swamps and wet meadows. (See illustration, p. 167.)

### Spreading Globeflower

*Tróllius láxus*.—Family, Crowfoot. *Color*, pale greenish yellow. *Sepals*, 5 or 6, petal-like, of a pale greenish yellow, giving the color to the flower. *Petals*, small, numerous, shorter than the many stamens, indented near the base. *Fruit*, several sessile, many-seeded pods. *Flowers*, single, terminal, about 2 inches across, open, spreading. *Leaves*, alternate, palmately divided, the lower on long petioles, those nearest the flower sessile, the divisions much cut and toothed.

In swamps from west Connecticut to Delaware and west to Michigan. A white-flowered variety is found in the Rocky Mountains.

### Celandine Poppy

*Stylóphorum diphýllum*.—Family, Poppy. *Color*, deep yellow. *Sepals*, 2, rough and hairy, small. *Petals*, 4. *Style*, prominent. *Pod*, bristly. *Leaves*, deeply once or twice pinnately divided, the divisions irregularly cut or lobed, all toothed, on long, slender petioles, from the root and on the stem, 4 to 10 inches long, pale green, smooth beneath. *Flower* peduncles as long as the leaves, borne at the summit of the stem. May.

Deep, cool, moist woods from Pennsylvania to Wisconsin and southward. Low plants with orange-colored juice, 2 leaves opposite on the stem near the top, sometimes a third, and terminal flowers, 2 or 3 in an umbel.

### Celandine

*Chelidónium mágus*.—(The "Swallow," so called because the flowers appear with the swallows.) Family, Poppy. *Color*, yellow. *Sepals*, 2, soon falling. *Petals*, 4. *Stamens*, many. *Style*, prominent. *Pod*, 2-valved, long, thin, on slender stalks, valves splitting from below and opening upward. *Stigmas*, 2. *Leaves*, thin, pinnately divided, often twice, with the divisions lobed, crenate, 4 to 8 inches long, light green, hairy.

This is a small-flowered, imported plant found around country gardens. It takes root easily in stone walls or sterile soil, and blossoms cheerily beside the garden-paths.

## YELLOW GROUP

The stems are full of a yellowish acid juice. Flowers in a small umbel.

"Long as there's a sun that sets,  
Primroses will have their glory;  
Long as there are violets,  
They will have a place in story;  
There's a flower that shall be mine—  
'Tis the little celandine."

—WORDSWORTH.

### Horn Poppy. Sea Poppy

*Glaucium flavum*.—Family, Poppy. Color, yellow. Sepals, 2. Petals, 4. No style, but a 2-lobed stigma, the lobes hollowed out. Fruit, a rough pod, 6 to 10 inches long, made 2-celled by a false partition. Flowers, axillary and terminal. Leaves, clasping the stem, pinnately cleft below, lobed and toothed above. Stem, 2 to 3 feet high. When broken it emits a yellowish juice like the celandine, of which it is a near relative. Summer.

In dry fields and waste places from Long Island to Maryland and Virginia near the coast. Rather rare.

### Golden Corydalis

*Corydalis aurea*.—Family, Fumitory. Color, golden yellow. Sepals, 2, small, scale-like. The corolla is spurred at the base on the upper side, the spur being about half as long as the tube of the corolla. Stamens, in 2 sets, 3 in each set, opposite the 3 largest petals. Flowers, in racemes on short pedicels. Leaves, broad for the genus, finely dissected into small segments. Pods, long, curved, prominent. March to May.

Rocky banks and woods from Vermont westward to Wisconsin and southward to Pennsylvania. Also in the Rocky Mountains.

### White Mustard

*Brassica alba*.—Family, Mustard. Color, yellow. Flowers, large, on somewhat stout pedicels in terminal racemes. Leaves, with petioles, lyrate, variously cut, the terminal lobe round and large. 2 to 5 feet high, stout and much branched. Pod tipped with a sword-shaped, 1-seeded beak.

Common name taken from the color of the seed. Cultivated for table use, it has spread and become a weed.

### Black Mustard

*B. nigra* bears yellow flowers in slender racemes. Leaves, the lower ones lyrate, the terminal lobe being large and often di-

## HARPER'S GUIDE TO WILD FLOWERS

vided. *Pods*,  $\frac{1}{2}$  inch long, filled with dark-colored, pungent seeds. *Plant*, 3 to 6 feet high, much branched.

Table mustard is made from the seeds of white and black mustard. When powdered and mixed with warm water the most pungent oil known is generated, causing strangulation if breathed. In England mustard is sown for forage. It is cut before the seeds are ripe and fed to cattle. The oil of mustard is used in making soap. *Sinapis* (common mustard) was known to the Greeks and Romans 300 years before Christ. The mustard referred to in Scripture is thought to be a small tree allied to the olive, whose fruit tastes like mustard-seed. Cabbage and turnip belong to this genus.

### Hedge Mustard

*Sisymbrium officinale*.—*Family*, Mustard. *Color*, pale yellow. *Flowers*, small, in close spikes, the lower forming pods, while the upper are still in bud. *Leaves*, deeply cut into narrow segments, the middle one the largest, the upper ones sessile, the lower on short petioles. The incised parts often turn backward. *Pods*, long, pointed, firm and thick, closely lying against the stem. May to November.

Naturalized from Europe, used for the table. In waste places, often a weed, everywhere except far North. 2 to 3 feet high.

### Tumble Mustard

*S. altissimum*.—*Color*, pale yellow. A tall species, 2 to 4 feet, with erect, rather stout stem. *Flowers*, small, few, in terminal racemes. *Pods*, very long, standing out from the stem, about the size of the peduncles, not numerous. *Leaves*, the lower much and deeply incised, with a large, middle lobe. Some of the segments are eared. Upper leaves reduced to very small, thin, linear bracts. Summer.

Roadsides and waste places. A recent immigrant, it is becoming a troublesome weed.

### Wormseed Mustard. Treacle Mustard

*Erýsimum cheiranthoïdes* (Name means "blister drawing.")—*Family*, Mustard. *Color*, yellow. *Flowers*, small, on slender, diverging stalks. *Pods*, short. *Leaves*, entire, lance-shaped, 1 to 4 inches long, the upper sessile, the lower tapering into a short petiole. Minute, split hairs cover the plant, which grows 2 feet high or less. June to August.

Along river-banks and in wet fields, or in more open places, in poor soil.

## YELLOW GROUP

### Marsh Cress

*Radicula palustris*.—Family, Mustard. *Color*, yellowish. Plant 1 to 4 feet high. *Leaves*, alternate, pinnately cleft or parted, the upper slashed or cut into very fine pieces, the lower divided or cleft, very pungent to the taste. *Pods*, short, curved, on stalks of the same length. May to August.

In wet places or often found growing in shallow water.

### Common Winter Cress. Yellow Rocket

*Barbarà vulgaris* (named from St. Barbara, and called the Herb of St. Barbara).—Family, Mustard. *Color*, yellow. *Flowers*, in terminal, long racemes, pods below, blossoms above. *Pod*, linear, round, or somewhat 4-sided. *Leaves*, the lower lyrate, having a large, terminal lobe; the upper deeply cut at base, rounded at apex. Smooth perennial.

Roadsides and wet ground East and West.

### Ditch Stonecrop

*Penthorum sedoides*.—(See description in chapter on Green Flowers, p. 31.)

### Mossy Stonecrop

*Sèdum acre*.—Family, Orpine. *Color*, yellow. *Sepals* and *petals*, 4 or 5. *Stamens*, twice as many as petals. *Pistils*, 4 or 5. *Leaves*, thick, fleshy, small, overlapping on the branches, like scales. June and July.

Moss-like plants spreading on the ground, better known in hanging baskets and urns, but found escaped from cultivation and growing wild on rocky places, roadsides, and fields from New England to Virginia and westward.

### Yellow Mountain Saxifrage

*Saxifraga aizoides*.—Family, Saxifrage. *Color*, yellow, with often orange-colored spots. *Sepals* and *petals*, 5. *Stamens*, 10. *Styles*, 2. *Flowers*, in corymbs at the ends of the branches, with slender pedicels. *Leaves*, long, narrow, lance-shaped, alternate, fleshy, the margins clothed with spiny hairs, narrowed at base, sessile, numerous on stem, and clustered at root. June to August.

Low plants, matted or tufted, smooth, 2 to 6 inches high. On wet rocks, almost an arctic plant, but found in Vermont and western New York. Delicate and pretty.

### False Goat's Beard

*Astilbe biternata*.—Family, Saxifrage. *Color*, yellowish or white. *Calyx*, small, 4 to 5-parted. *Corolla*, sometimes wanting,

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when present, of 4 to 5 petals. *Flowers*, pistillate and staminate in different flowers, in racemes or large compound panicles. *Leaves*, twice or thrice compound. *Leaflets*, thin, heart-shaped, lobed, toothed.

A coarse plant, 4 or 5 feet high, found in woods along the mountains of the Southern States.

### Cinquefoil. Five-finger

*Potentilla monspeliensis*.—*Family*, Rose. *Color*, yellow. *Calyx*, large, 5-cleft, with narrow bracts in the recesses. *Petals*, 5, small. The calyx-lobes project beyond the petals. *Stamens*, 15 to 20. *Flowers*, in a small, close, leafy cyme. *Leaves*, of 3 leaflets, sessile; leaflets rather deeply serrate.

A branching, hairy species, growing from 6 inches to 2 feet high. Stems thick. Flowers crowded and mixed with leaves at the end of the stem. They are insignificant, and the petals soon drop. Most of our cinquefoils have 5 leaflets. This has 3. Common.

*P. recta*.—*Color*, pale yellow. *Leaves*, palmately divided, 5 to 9-foliate, generally 7, deeply toothed along the margins. *Stems*, upright, stout, hairy. *Corolla*, large, showy. *Petals*, notched. June to August.

Bordering fields and roadsides from Maine to Pennsylvania and westward. An imported species.

### Tall Cinquefoil

*P. arguta*.—*Color*, yellow, or sometimes white. *Petals*, large, about the size of a strawberry blossom. *Leaves*, pinnate, with 7 to 11 leaflets, oval in shape, downy beneath. A stout, high species with brown and hairy stems 4 feet or less high. June and July.

Rocky or gravelly soil, northward from New England to the Rocky Mountains, south as far as New Jersey, Illinois, and Kansas.

### Silvery Cinquefoil

*P. argentea*.—*Color*, yellow. The *flowers* grow in terminal, leafy cymes. *Leaves*, palmately divided, on long petioles, with small stipules, very white and velvety underneath, shiny, dark green above. *Stem*, also white-woolly, ascending, 4 to 12 inches long. June to September.



SILVER WEED (*Potentilla Anserina*)  
(See page 174)

## HARPER'S GUIDE TO WILD FLOWERS

Dry fields, New England to Washington, D. C. It is impossible not to recognize this showy cinquefoil, with its silvery stem and leaves and its handsome flowers.

### Common Cinquefoil

*P. canadensis*.—This species runs upon the ground or stands erect. *Stems* are brown, wiry, roughish. *Flowers*, on long peduncles, single, from the leaf-axils. Runners are produced as from strawberry vines. The 3 leaflets number apparently 5, by the deep division of the 2 side leaflets. May to July.

Dry, sandy soil, waysides in all the Eastern States.

### Silver Weed

*P. Anserina*.—*Calyx* and *corolla*, 5-divided. 5 bractlets, often cut, lie between the *sepals*. *Leaves*, all from the root, pinnate, with from 7 to 21 leaflets and smaller ones in between, dark green above, silvery white beneath. 2 or 3 feet long. June to August.

The broad, open, yellow flower grows on a scape from a bed of beautifully cut, handsomely colored leaves, which are green above, conspicuously white beneath. Like a strawberry plant, the silver weed spreads by jointed runners. Along the dunes bordering Long Island bays I have found this pretty potentilla, its leaves lapping the water. In salt or brackish marshes, banks of streams, very widely disseminated. (See illustration, p. 173.)

### Shrubby Cinquefoil

*P. fruticosa*.—*Color*, bright yellow. *Stem*, erect, much branched, woody, leafy. *Leaves*, pinnate, with 5 to 7 leaflets, paler beneath, silvery, the leaflets roundish, with turned-back margins.

In some parts of Vermont and New Hampshire this is a troublesome weed, covering the low, open hills with their thick bushes, which in autumn turn a dark brown. This might be placed among the shrubs.

### Yellow Avens

*Géum strictum*.—*Family*, Rose. *Color*, yellow. *Calyx* of 5 sepals, with bractlets in the sinuses. *Petals*, 5. *Stamens*, many. *Leaves*, from the root, pinnate, with 5 to 7 wedge-shaped leaflets; those on the stems 3 to 5-divided, with oblong, acute leaflets. *Stipules*, prominent and deeply cleft. *Pistils*, many, forming burs with hooked bristles in fruit on a soft, downy receptacle. July and August.



AGRIMONY (*Agrimonia striata*)

(See page 176)

## HARPER'S GUIDE TO WILD FLOWERS

Moist meadows and damp thickets from New Jersey north and west. This is a pretty flower with graceful foliage, 2 to 5 feet high, dotting the New Jersey meadows in summer.

### Agrimony

*Agrimonia*.—*Family*, Rose. *Color*, yellow. The genus *Agrimonia* may be known by a terminal long spike of small yellow flowers whose calyx is tubular, 5-lobed, its throat and margin being covered with hooked bristles. After the petals fall, this calyx closes over the fruit, investing it with bristles, so that it becomes a small bur. The fruit consists of 2 achenes, one in each of a pair of carpels. *Stamens*, 5 to 15. *Leaves* are pinnate, composed of several pairs of leaflets, with small ones intermediate, and large, prominent stipules, all deeply serrate.

The following species are found in the Eastern States from Maine to Georgia:

*A. striata*.—*Flowers*, in loose, narrow racemes, widely separated. *Leaflets*, crenate, sessile, generally 5, with quite small intermediate leaflets. 1 to 5 feet high, more often 2 feet. Late summer.

Moist woods. (See illustration, p. 175.)

*A. mollis*.—*Stem* and *leaves*, softly hairy. *Leaflets*, mostly 7, dull green, widely spreading. *Fruit*, top-shaped, broad above, bristles borne on a flat or convex disk. 1½ to 6 feet high. July to September.

Dry fields.

*A. parviflora*.—*Spikes*, many and rather closely flowered. *Stem*, rough, 2 to 6 feet high. *Leaflets*, 9 to 17, thin, linear, sharply toothed, crowded, with many smaller ones between of varying size. July to October.

Dry, sandy soil.

*A. rostellata*.—*Stem*, slightly glandular from a tuberous root, covered with scattered hairs. *Leaflets*, about 5, ovate or oblong, crenately toothed, the intermediate ones very small. *Stipules*, large, toothed. *Flower-spike* loosely covered. July to September.

Dry, rocky woods.

*A. gryposepala*.—*Stem*, very glandular, hairy. *Leaflets*, large, thin, about 7, ovate or oblong, sharply serrate. 2 to 6 feet high. June to August.

## YELLOW GROUP

Woods and thickets, dry or moist soil. The species are difficult to separate.

### Wild Senna

*Cássia marilandica*.—Family, Pulse. Color, bright golden yellow, growing paler. Leaves, compound, of 8 to 10 pairs of oval leaflets. July and August. The papilionaceous type of corolla is lost here. The petals, 5 in number, are unequal, open and spreading, large, made more conspicuous by the 10 stamens of different lengths, with their large, dark-brown, almost black anthers. No tendrils or odd leaflets terminate the pinnate leaves. A small club-shaped gland marks the joining of each leaf to the main stem on the upper side of the leaf. The flowers terminate the branches in short axillary racemes. The corolla drops off easily, and a specimen gathered for the herbarium must be quickly dried. It grows 3 to 5 feet high, a handsome plant, with slender, hairy pods, 3 inches long, following the blossoms.

Collected and dried, the pods and leaves form the American senna used in medicine. New England to Florida and westward.

### Partridge Pea

*C. Chamaecrista*.—Color, bright yellow. The spreading petals, not papilionaceous in character, are unequal in size. 2 or 3 have a purple spot at the base. Stamens, 10, 4 with yellow anthers, 6 with purple, all opening by 2 pores at the apex. Pod, flat, many-seeded, with cross-partitions. Leaves, pinnate, from 10 to 15 pairs of leaflets, and one terminal, all somewhat sensitive, folding together when plucked. A pair of cup-shaped glands is found at the base of the 2 lowest leaflets. Stipules, present. The showy flowers, on slender pedicels, grow in small clusters under the leaves. Stems, erect, but spreading, about 1 foot long. Late summer.

Dry, sandy soil, especially near the seashore, Massachusetts southward and in the interior.

### Wild Sensitive Plant

*C. nictitans*.—This species bears very small flowers, on short pedicels, similar in shape and size to the last. Leaflets, 10 to 20 pairs, oblong to linear, sensitive, with a gland at the base of the petiole.

Shelley's famous poem, "The Sensitive Plant," refers to the *Mimosa pudica*, a European plant, whose leaves are more sensitive than those of our *cassias*. All of this genus fold their leaflets and "sleep" at night. In the partridge pea each pair folds together, and they then lie along their main



WILD SENSITIVE PLANT (*Cassia nictitans*)  
(See page 177)

## YELLOW GROUP

stem, flattening themselves closely against it, so as scarcely to be distinguishable at night from the branches.

“A sensitive plant in the garden grew,  
And the young winds fed it with silver dew;  
And it opened its fan-like leaves to the light,  
And closed them beneath the kisses of night.”

The leaves of our species are feather-like rather than fan-like.

These plants are common from New Jersey and Long Island southward. In their season they make bright with color the dry land along the railroads, extending into the fields and lining the waysides. (See illustration, p. 178.)

### False or Wild Indigo

*Baptisia tinctoria* (name means “to dye,” on account of the use of some species to make a “poor indigo”).—Family, Pulse. Color, yellow. Calyx, 4 or 5-toothed. Corolla, papilionaceous. Stamens, 10. Pods, roundish, pointed, stalked, a little raised above the calyx. Leaves, smooth, small, 3-divided, nearly sessile, the leaflets wedge-shaped. Stipules and bracts present, but very small. Flowers, in numerous short racemes. Summer.

This common, well-known “indigo” plant is found everywhere along our walks and drives, in sandy soil. The leafy, much-branched, in outline roundish, bushy herb, about 2 feet high, with its bright racemed pea-blossoms, is a general favorite, notwithstanding its tendency to turn black when picked and dried for the herbarium.

### Rattle-box

*Crotalaria sagittalis*.—Family, Pulse. Color, yellow. Corolla, papilionaceous, the standard large, broad, heart-shaped. Of the 10 united stamens, 5 have larger anthers than the others. The pistil protrudes. Pods, at first green, then turning black, becoming hard and brittle. The dry seeds rattle in the pod, whence the common name. Leaves, simple, oblong, acute, nearly sessile. Stipules, present, inversely arrow-shaped at base, so formed by running down on the stem. June to September.

A small, coarse, hairy plant, 1 foot high or less, near the coast in sandy soil from Massachusetts to Florida and Texas.

### Yellow or Hop Clover

*Trifolium agrarium*.—Family, Pulse. Color, yellow, the corolla becoming dry and brown with age. Leaves, 3-foliate, spreading,

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of a roundish or oval form. *Stipules*, long and narrow, joined to the leaf-stalks for half their length. Summer.

Light, sandy soil, by roadsides and in fields from New England to Virginia. A naturalized species.

### Low Hop Clover

*T. procumbens*.—Much like the last, with downy, spreading stems, 5 to 6 inches high. *Leaflets*, notched at the end, not equal distances apart. *Stipules*, roundish, short.

Common in all the Eastern States in sandy, dry fields, and along roadsides. Naturalized from Europe.

### Yellow Melilot. Sweet Clover

*Melilotus officinalis*.—Family, Pulse. *Color*, yellow. *Flowers*, small, in spiked, drooping racemes. *Leaves*, of 3 toothed leaflets, blunt at apex, minutely serrate.

A plant which, when dried, is fragrant. It grows tall, from 2 to 4 feet. Common in waste fields or cultivated ground.

### Black Medick. Nonesuch

*Medicago lupulina*.—Family, Pulse. This is a yellow-flowered clover, with *flowers* in short spikes; and kidney-form, 1-seeded pods. *Leaves*, with petioles, 3-divided, the leaflets nearly round, often tipped with a small thorn. *Pods*, when ripe, curl and become black. March to December.

In dry fields and waste places, a weed, throughout the country. Brought originally from Europe.

### Pencil Flower

*Stylosanthes biflora* (name means columned or penciled flower, from the stalk-like calyx tube).—Family, Pulse. *Color*, yellow. *Calyx*, with a slender tube, upon which the papilionaceous corolla with included stamens stands. *Standard*, round, and *keel* incurved. *Stamens*, in 2 sets, distinguished by their anthers, of which the 5 longer are joined to their filaments near their bases, the 5 shorter alternating with the longer, fastened near the middle. *Pods*, 1 or 2-jointed, with the lower half of the hooked style clinging to them. When 2-jointed the lower joint is empty, and it acts like a stalk for the upper. Heads few, clustered with small flowers. *Leaves*, divided into 3 sessile, lance-shaped leaflets, with straight, prominent veins. *Stems*, low, branched from the base, 6 to 20 inches long.

New York and New Jersey to Florida in pine barrens and sandy soil, generally, near the coast.

## YELLOW GROUP

### Yellow Flax

*Linum striatum*.—Family, Flax. Color, yellow. Sepals, short, 5. Petals, stamens, and pistils, 5. A perfect and symmetrical flower, often taken as a pattern for class study. Stamens, united at base. Flowers, small, rather crowded on viscid, clustered stems, creeping at base. They last only a day, and produce a roundish, brown pod. Leaves, opposite below, alternate above; oblong, rather broad. Stem and branches, angular, often winged by ridges sent down from the leaf petioles. Summer.

In bogs and swamps, New England to Florida and westward. *Linum* means a thread. Flax is an Anglo-Saxon word, signifying to plait or weave. The use of flax for linen cloth, cordage, etc., is as ancient as are the Egyptian mummies, many of which were wrapped in fine linen. Of its history we read that "in the Temple of Minerva at Lindus there was kept a linen corselet of fine workmanship which had been worn by Amasis, an Egyptian king who reigned 600 years before Christ, each thread of which was composed of 360 filaments."

### Wild or Slender Yellow Flax

*L. virginianum*.—Blossoms like the last. They are small, star-like, scattered on the spreading branches in an irregular panicle. Leaves, entire, thin, oblong, or long and narrow, on the flowering branches reduced to bracts. 1 to 2 feet high. June to August.

Suckers springing from the base of the stem help to propagate the plant, which is a common growth on the edges of light, dry woods.

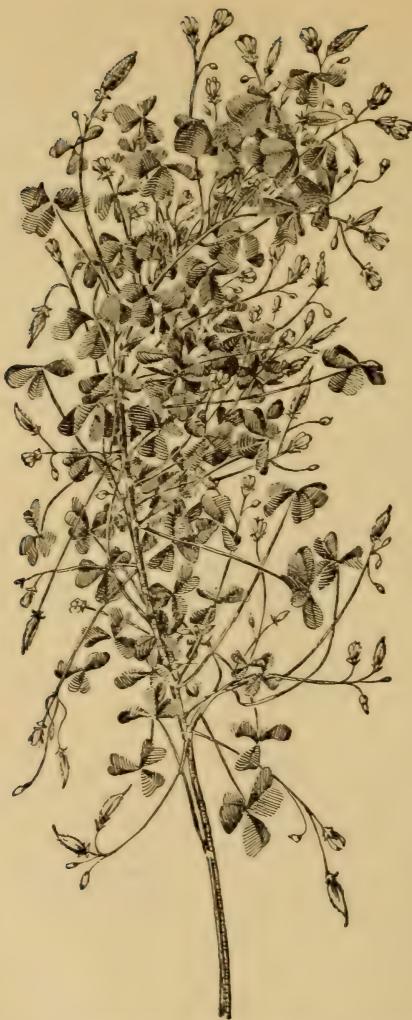
### Grooved Yellow Flax

*L. sulcatum*.—The flowers of this species are rather large, about  $\frac{1}{2}$  inch across, on ascending branches that are grooved and strongly angled. Sepals, bristly margined, sharp-pointed, 3-nerved. Flowers, in irregular corymbs. Pods, conspicuous, roundish. Leaves, alternate, long, narrow, with a pair of dark-colored glands instead of stipules. Plant 2 feet high or less.

In dry soil, mostly in the interior, along the mountains to Georgia westward.

### Lady's Sorrel. Yellow Wood Sorrel

*Oxalis corniculata* (name means "sour").—Family, Geranium. Sepals, petals, styles, 5. Stamens, 10. Pods, long, erect, weak-stemmed, arranged in cymes or umbels, standing erect at the



LADY'S SORREL. YELLOW WOOD SORREL. (*Oxalis corniculata*)  
(See page 181)

## YELLOW GROUP

tip of the peduncle. *Leaves*, on stem and from the root, notched, of 3 leaflets.

The common yellow sorrel flower varies greatly in size from a buttercup to a small cinquefoil. The plant is smooth or roughish. Stem-leaves and upright pods contain acid juice, pleasing to pickle-loving school girls. The flowers grow on leafy stems, springing from the leaf-axils, on rather long peduncles. This is one of the plants that conspicuously "sleep" and fold their leaflets at the approach of night. This species bears secondary blossoms, which are pollinated in the closed bud and are especially fruitful. Strangely, the ordinary, more showy flowers absolutely prevent self-pollination by having stamens and anthers of 2 or even 3 different lengths, dimorphous or trimorphous. (See illustration, p. 182.)

### Orange Milkwort. Wild Bachelor's Button

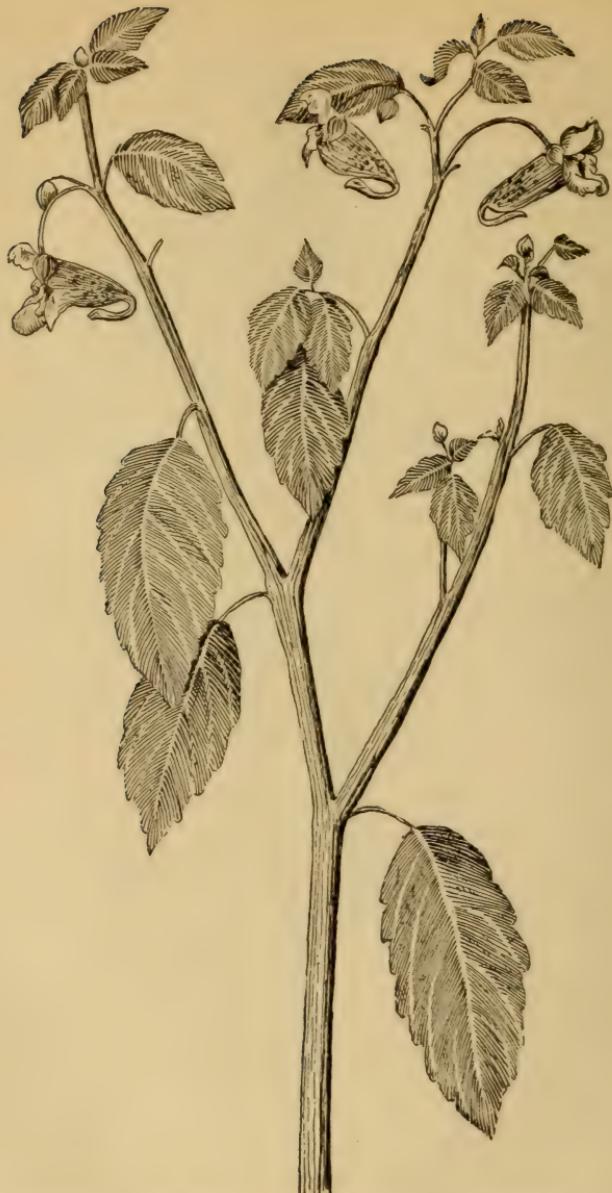
*Polygala lutea*.—Family, Milkwort. *Color*, bright orange yellow, which is not lost in drying. Button-like heads closely packed with small flowers terminate the stem and branches of this low plant, which grows from 6 to 12 inches high. *Lower leaves* broad, acute, closely joined to the stem, often tapering at base. *Plant*, tufted, smooth, with fibrous roots. June to October.

Not uncommon in Long Island swamps, New Jersey pine barrens, in Pennsylvania, near the coast to Florida and Louisiana.

### Jewel-weed. Balsam. Touch-me-not

*Impatiens pallida*.—Family, Touch-me-not. *Color*, yellow, somewhat spotted with brown. *Flower*, irregular. *Calyx*, yellowish, colored like corolla, of 4 sepals. One of the sepals forms a broad sac ending in a curved spur, which is the prominent feature of the flower. *Petals*, 2, each 2-lobed. *Stamens*, 5. *Pod*, 5-valved. When ripe, the pod bursts, each valve curling upward and throwing the seeds to some distance. The plant bears also smaller and more fertile flowers, which are pollinated in the bud. The larger ones seldom bear fruit. *Leaves*, petioled, oval, toothed, the teeth sharp-pointed, pale green, almost silvery underneath. If placed in water the leaves show tints of silver and gold. Smooth, 2 to 5 feet high.

The way in which this plant scatters its seed illustrates one of nature's admirable contrivances for securing wide propagation of its species. It seems a less clumsy method



JEWEL-WEED. BALSAM. TOUCH-ME-NOT. (*Impatiens pallida*)  
(See page 183)

## YELLOW GROUP

than that employed by sticktights, which depend upon animals for their dispersal. In damp ground, preferring rich soil and some shade, in all the Eastern States. (See illustration, p. 184.)

### Spotted Touch-me-not

*I. biflora*.—This species is deeper yellow, more spotted, with a longer and narrower sac and spur than the last. The two are often found growing together, in wet soil, along roadsides where springs run, or in wet dells, where these plants mass themselves.

Scarcely any plant by its numerous common names proves itself dearer to the common people. Lady's eardrops, silver-leaf, touch-me-not, lady's slipper, refer to the pendent blossom, or the silvery appearance of the leaf when held under water, or the seeming touchiness of the pod, which, when ripe, goes off with the slightest handling.

### Indian Mallow. Velvet Leaf

*Abutilon Theophrasti*.—Family, Mallow. Color, yellow. Calyx, 5-cleft. Corolla, 5-divided, the petals open and spreading, nearly 1 inch across. Flowers, on stout peduncles, in the leaf-axils. Stem, 3 to 6 feet high. Stamens, standing in a column around the pistil, bearing anthers at the top. Ovary separates into many cavities which are hairy and beaked. Leaves, broad, tapering at tip to a sharp point, strongly heart-shaped, often nearly a foot across, on long petioles. August to October.

In waste places as vacant city lots, common especially in the South, where it becomes a weed.

### Sida

*Sida spinosa*.—Family, Mallow. Color, yellow. Calyx, 5-cleft. Petals and styles, 5. Fruit, of 5 carpels united, each becoming 2-beaked at the top. Leaves, linear or lance-shaped, on petioles, toothed.

A low, branched plant getting its name from a spine-like protuberance found at the base of some of the leaves. An importation from the tropics, this plant is now found growing in waste fields of southern New York and to the westward and southward.

### St. Peter's-wort

*Ascyrum stans*.—Family, St. John's-wort. Color, yellow. Sepals, 4, the 2 outer much broader than the inner, leaf-like. Petals, 4, open, spreading. Stamens, many. Styles, 3 or 4. Fruit, a pod, 1-celled, but splitting into 2 to 4 pieces. Flowers,

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single, or few in a terminal cyme. *Leaves*, opposite, oval, growing erect, black-dotted, clasping or sessile. *Stem*, erect, 1 or 2 feet high, flattish, smooth, and leafy. July and August.

Pine barrens of Long Island to Pennsylvania and southward.

### St. Andrew's Cross

*A. hypericoides*.—*Petals*, linear, not longer than the sepals, spreading, 2 on each side, approaching one another in the form of the letter X or the cross of St. Andrew. A lower plant than the last, with narrower and thinner leaves.

Found in wet or dry sand in Nantucket, Massachusetts to Florida, and far westward. In mountains of Virginia, 2,800 feet high. Low, shrubby, much branched.

### Common St. John's-wort

*Hypéricum perforatum*.—*Family*, St. John's-wort. *Color*, yellow. *Sepals*, 5. *Petals*, 5. *Stamens*, very numerous, united in 3 or 5 groups. *Styles*, 3. *Pod*, 3-celled. *Petals* and *anthers* dotted with black. A much-branched, leafy *stem*, with runners starting near the base, and many flowers in a flat cluster. *Leaves*, oblong or lance-shaped, pellucid-dotted, opposite, sessile, meeting and almost clasping the stem. June to September.

Very common. A weed when once established difficult to extirpate. Juice tart and blistering to the mouth. Where not too common it is a bright and attractive plant. Imported from Europe.

*H. adpressum*.—*Color*, yellow. *Sepals* and *petals*, 5. *Stamens*, many. *Flowers*, in terminal cymes, leafy near the base. *Leaves*, long, linear to oblong, acute at apex, thin, dotted. *Stem*, simple, unbranched, arising from a woody base, 2 or 4-edged or angled, about 18 inches high. *Flowers*, rather large and conspicuous. July and August.

Near the coast, moist, sandy shores, Massachusetts to Florida. (See illustration, p. 187.)

### Pale St. John's-wort

*H. ellipticum*.—*Petals*, pale yellow. *Flowers*, few, in a cyme which has few or no leaves. *Leaves*, on the stem, thin, blunt, elliptical to oblong, with a clasping base. 8 to 20 inches high. July and August.

Wet places over a large area East and West.



COMMON ST. JOHN'S-WORT (*Hypericum adpressum*)  
(See page 186)

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*H. punctatum*.—*Petals*, pale yellow, marked with dots or lines of a darker shade. *Flowers*, crowded in terminal cymes. *Leaves*, oblong or lance-shaped, their bases almost clasping, conspicuously dotted with both black and clear dots. *Stem*, round. A perennial arising from a woody base. July to September.

We are likely to become confused with the many slightly varying species of St. John's-worts. Any one of them was in the eyes of maidens of an older time, endowed with a sort of magical power. If cultivated successfully in a garden, it would secure a husband within a year. Gathered and hung on the doors on the eve of St. John, it was supposed to be a protection against evil spirits. Common from Maine to Florida and westward, in moist soil.

### Great St. John's-wort

*H. Ascyon*.—*Color*, yellow. *Sepals*, *petals*, *styles*, 5. Many stamens and a red *pod*. *Flowers*, in cymose clusters, 2 inches across. *Leaves*, opposite, dotted, large, 3 to 5 inches long, clasping or sessile. Height, 2 to 5 feet. July.

This is the tallest of the genus, bearing large, showy blossoms. The dots in the leaves can be easily seen by holding them to the light. River-banks in all the Eastern States and far into the interior.

### Weak or Dwarf St. John's-wort

*H. multiflorum*.—*Flowers*, small, few, yellow, on leafy branches. *Leaves*, opposite, spreading, 5-nerved, meeting and clasping on the stem below the weak branches from which the cymes of blossoms arise. 6 to 20 inches high. July and August.

Common in low, moist ground from Maine to Florida and Texas. Found 3,000 feet high in mountains of Virginia. (See illustration, p. 189.)

### Canada St. John's-wort

*H. canadense*.—*Color*, deep yellow. *Sepals* and *petals*, as in others of the genus. *Stamens*, usually about 12, in 3 groups; sometimes 5 in a single row. *Flowers*, in leafless, cymose clusters, less than  $\frac{1}{2}$  inch across. *Pods*, reddish, longer than the calyx, pointed at top, 1-celled. *Leaves*, long, narrow, pointed, 3-nerved at base, dotted. *Stems*, square, straight, upright, 6 to 15 inches high. June to October.

Wet or dry soil over all the Eastern and Middle States and southward. (See illustration, p. 191.)



WEAK OR DWARF ST. JOHN'S-WORT (*Hypericum mutilum*)

(See page 188)

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*H. virginatum*.—*Color*, a coppery yellow. *Sepals*, leaf-like, remaining and inclosing the ovoid pod. *Stamens*, usually in 3 distinct clusters. *Flowers*, scattered on the erect stems, leafless, in racemes. *Leaves*, oblong or lance-shaped, broad at base and sessile, almost clasping the stem. *Branches and stem*, 4-angled. 1 to 2 feet high. July to September.

Wet pine barrens from Pennsylvania to Georgia and westward.

### Orange Grass. Pineweed

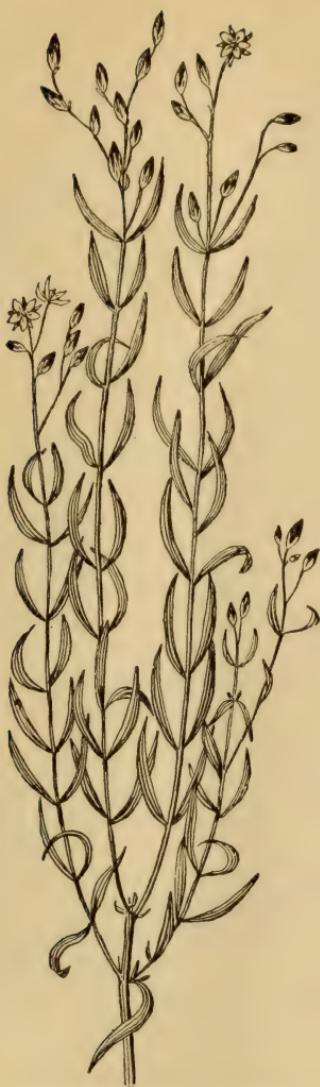
*H. gentianoides*.—*Color*, deep yellow. *Flowers*, small, sessile on the wiry branches, but easily recognized as belonging to this



ORANGE GRASS. PINEWEEED. (*Hypericum gentianoides*)

genus by the red pods. *Leaves*, small, thin, linear, pressed against the stem, scale-like. 6 to 18 inches high.

Wide range East and West. Very common in sandy soil,



CANADA ST. JOHN'S-WORT (*Hypericum canadense*)  
(See page 188)

## HARPER'S GUIDE TO WILD FLOWERS

along roadsides from Maine to Florida and Texas; not found beyond the Alleghany Mountains. (See illustration, p. 190.)

### Frostweed

*Helianthemum canadense* (name means "sunflower," so called because the flowers open only in sunshine).—*Family*, Rockrose. *Color*, yellow. *Sepals*, 5, 2 of them long, thin, bract-like, hairy or whitish and downy. *Petals*, 5, sometimes none. *Stamens*, 3 to 10, or numerous. *Pistil*, 1, with a 3-lobed, sessile stigma. *Stem*, very hoary, at first simple, then branched. *Leaves*, alternate above, opposite below, simple, numerous, lance-shaped to oblong, hoary underneath. Large petal-bearing flowers, bloom June to August.

This singular plant produces two kinds of blossoms, the earlier in July, a large, 5-petaled flower, opening only in sunshine, dropping its petals the next day, 1 inch across, with many stamens lying flat against the petals. The pod is 1-celled, with numerous seeds. The blossom, resembling an evening primrose, is solitary on the stem. Later in the season—August and September—much smaller flowers cluster in the axils of the leaves up and down the stem, with or without petals, with 3 to 10 stamens and very small, roundish, few-seeded pods, giving the plant an entirely different appearance.

The plant gets its name from the curious ice-crystals which form on the stem near the root in November on frosty mornings.

Mr. Gibson says of this frost flower (*Sharp Eyes*): "It is a flower of ice-crystal of purest white, which shoots from the stem, bursting the bark asunder, and fashioned into all sorts of whimsical, feathery curls and flanges and ridges. It (the crystal) is often quite small, but sometimes attains three inches in height and an inch or more in width. It is said to be a crystallization of the sap of the plant, but the size of the crystal is often out of all proportion to the possible amount of sap within the stem, and suggests the possibility that the stem may draw extra moisture from the soil for this especial occasion." In sandy soil, Maine to Minnesota and southward.

### Hoary Frostweed

*H. majus*.—Similar to the last, but more hoary in stem and leaves. *Flowers*, pale yellow, clustered in corymbs at the end of the stem. Secondary flowers very small, without petals,

## YELLOW GROUP

clustered in the leaf-axils, producing dark-brown pods, often found growing with the last in sandy soil with same range. First flowers appearing in June and July.

The frost flowers are not seen upon this species.

*H. corymbosum*.—This is a species peculiar to the New Jersey barrens and southward along the coast. The *flowers* of both kinds are produced together in clusters at the summit of the stem, the petal-bearing ones small, at length becoming prominent by standing out on long, slender pedicels. 6 to 12 inches high.

Very white and woolly.

### Round-leaved Violet. Early Yellow Violet

*Viola rotundifolia*.—*Family*, Violet. *Color*, yellow. *Flowers*, on scapes 2 to 4 inches high, ascending from rootstocks which are rough with the remains of former leaves. *Petals*, of a pale yellow, the 3 lower ones marked with brownish lines, the lateral bearded. *Leaves*, ovate to roundish, heart-shaped, crenate, smooth, shiny, at flowering season 1 to 2 inches broad, on short petioles. Later they become larger, 3 or 4 inches broad, and lie prone upon the ground. One often finds these leaves in summer carpeting the woods, without associating them with the dear little violet that accompanies them in spring. May and June.

Cold woods, rocky hillsides, Maine to Delaware, in the mountains to Georgia and westward.

Later cleistogamous flowers appear on short runners.

### Downy Yellow Violet

*V. pubescens*.—*Color*, yellow, the *petals* purplish-veined. This is one of the leafy violets, and the flowers stand, one or more, above a pair of leaves, not large, softly yellow. *Stem*, downy, rather rough, 5 to 18 inches high. *Leaves*, broad, generally 2 on the stem, with a bract or two below, otherwise the stem is naked. Basal leaves have long petioles, are broadly ovate or roundish, kidney-shaped, softly hairy about the edges and petioles. *Flowers*, without petals, can be found later in the season on short peduncles.

A beautiful spring flower, growing abundantly, often in large, close patches. The plant gives an impression of much green and little color. Dry, cold woods, western New England south to Georgia, and westward.

Bryant's "first flower of spring" is the yellow violet.

"When beechen buds begin to swell,  
And woods the bluebird's warble know,  
The yellow violet's modest bell  
Peeps from the last year's leaves below."

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### Prickly Pear. Indian Fig

*Opuntia vulgaris*.—Family, Cactus. *Color*, pale yellow. *Sepals*, indefinite. *Petals*, about 8, united with the sepals into a short tube, which is attached to the top of the 1-celled ovary. *Flowers*, about 2 inches broad. *Stamens*, many, their filaments long and slender. *Pistil*, 1, forming in fruit a fleshy, pear-shaped, edible berry, 1 inch long. *Leaves*, very small, pale green,  $\frac{1}{2}$  inch long, awl-shaped, with barbs or prickles in their axils, arranged spirally on the fleshy, flattened, jointed stems.

The flowers lie close to the flattened branches. Clusters of short, greenish-yellow bristles underlie them and spring up in the leaf-axils. The branches grow irregularly out of one another, 2 to 4 inches long, oval in shape.

*O. Rafinesquii*.—This is the only other Eastern species, with longer jointed, deeper green branches, and larger flowers and fruit. The flowers often have a reddish center. Bristles reddish brown, otherwise much like the last.

Both species grow on sandy soil or on flat rocks. Among the hills of New Jersey they attain great perfection, the pedestrian coming sometimes upon a large, flat rock covered with the yellow beauties basking in the direct heat which they love so well. They are also found near the shore from Nantucket to South Carolina, in sandy soil.

The cactus is essentially a desert plant, adapted by its habit of patient, slow growth, its succulent branches wherein moisture is stored, and its leathery skin and few breathing-pores which prevent evaporation, for life in arid regions, where nothing else can grow.

Some species bear edible, luscious fruit. Upon one—a native of Mexico—the cochineal insect is fed, giving rise to a large industry. In Arizona the fruit of one species of cactus is thrown into the fire till the bristles are burned off. It is then chopped open and fed to cattle. So juicy is this fruit that it supplies drink as well as food for the animals in places where water is often scarce and procured with difficulty. The famous night-blooming cereus is a cactus.

### Seedbox. Rattlebox

*Ludwigia alternifolia*.—Family, Evening Primrose. *Color*, yellow. *Calyx-tube*, short, with 4 lance-shaped or ovate, leaf-like lobes. *Petals*, 4, in the upper axils, on short peduncles, rather large, dropping when the plant is shaken. *Stamens*, 4.

## YELLOW GROUP

*Fruit*, a 4-square, box-like capsule, with rounded base and winged angles, in which the ripe seeds rattle. *Leaves*, sessile, linear or lance-shaped, pointed at both ends. A smooth, erect *stem* 2 to 3½ feet high arises from fascicled, sometimes tuberous, roots. June to September.

Swamps or low, shady, wet woods, from Maine to Florida and Texas.

*L. hirtella*.—A hairy form, smaller in *flowers* and *leaves*, 1 to 2 feet high, with clustered roots which are often thickened and tuberous. *Leaves*, blunt at both ends, or pointed at apex, lance-shaped. June to September.

In wet pine barrens, New Jersey to Florida and Texas.

*L. linearis* bears small *flowers*, single, in axils of very narrow, linear *leaves*, sessile, later producing rather large capsules. *Calyx-tube* angled, bearing at top triangularly-shaped lobes, shorter than the *petals*, which are a pale greenish yellow. 12 to 30 inches high. July to September.

Swamps, pine barrens in New York and New Jersey.

### Common Evening Primrose

*Oenothera biennis*.—*Family*, Evening Primrose. *Color*, bright yellow. *Calyx-tube*, 4-lobed at top, narrow, much prolonged beyond the ovary. *Petals*, 4. *Stamens*, 8. *Fruit*, a 4-valved capsule. *Leaves*, alternate, long, narrow or oblong, pointed, the lowest on petioles.

The evening primroses may be known by a long calyx-tube, at the end of which is the flower. The flowers are short-lived, and are followed by rough pods on the lower part of the spike. Hence, though a showy flower, generously brightening dry and dusty places, the aspect of the whole plant is coarse and unfinished. The flowers open at sunset and on cloudy days, and wither the next morning. In September they remain open all day.

The stem is stout and hairy, 1 to 5 feet high. These blossoms are fertilized by night-flying insects, whose keen eyes see the golden blossoms in the darkness, and whose keen sense of smell is attracted by their delicate fragrance. (See illustration, p. 196.)

### Sundrops

*O. fruticosa*.—*Flower*, nearly as in the preceding. The *calyx-lobes* turn back. *Pod*, 4-angled, on a short, thick stalk. *Leaves*,



COMMON EVENING PRIMROSE (*Oenothera biennis*)  
(See page 195)

## YELLOW GROUP

alternate, oblong or lance-shaped, generally acute at apex, narrowed and sessile at base. Those at base sometimes have short petioles. June to August.

A variable species, from 1 to 3 feet tall, with delicate, lemon-colored, large flowers, slightly fragrant, in loose or corymbic clusters. The flowers open by day and close at night. In dry fields and sandy soil from New England to Georgia and westward.

*O. pumila* is a smaller species, with pods less winged, and with entire, blunt-pointed leaves, narrow at the base. 1 to 2 feet high. Flowers, in a loose, leafy spike. June to August.

The evening primroses of the Eastern States are all yellow. Two white or rose-colored species are found west of Kentucky and Missouri. Dry fields. From northern New England to Georgia and westward.

*Taenidia integrifolia*.—Family, Parsley. Color, yellow. Flowers, in umbels on slender peduncles, the pods becoming long-stalked. Few or no involucral bracts underneath. Leaves, twice or thrice compound, rather large, the petioles of those above swollen at base. Leaflets, ovate or narrow, tipped with a small bristle at apex. Smooth plants, 1 to 3 feet high.

In dry, rocky woods, sandy soil, from New England to North Carolina and westward.

### Golden Meadow Parsnip

*Thaspium aureum*.—Family, Parsley. Color, deep yellow. Flowers, in compound umbels, large and handsome. The fruit, maturing in August or September, is pedicelled, angled, with styles present. Leaves, those from the root heart-shaped, toothed; those on the stem 3-divided, the leaflets roundish or ovate, serrate. Stem, smooth and stout. Summer.

Open woods and thickets in Middle and Southern States.

### Meadow Parsnip

*T. barbinode*.—Color, pale yellow. Leaves, twice or thrice compound, alternate; those near the base less divided than those higher up on the stem. Leaflets, long, narrow, somewhat ovate, coarsely toothed. Tall, 2 to 4 feet high, with umbels of yellow flowers and rather large seeds. Soft, fine hairs grow along the joints of the stem and among the flowers. May and June.

River-banks and along streams from New York to Minnesota and southward.

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### Golden Alexanders

*Zizia aurea* (named from a botanist, I. B. Ziz).—*Family*, Parsley. *Color*, golden yellow. *Flowers*, rather large for this family, in compound umbels. *Stem*, erect, hollow, branched, 2 to 3 feet high. *Lower leaves*, long-petioled, heart-shaped at base; those on stem divided into 3 stalked leaflets, each leaflet ovate or oval, undivided, serrate all around, the petiole clasping the stem with enlarged base; those still higher up near the flower, sessile. May and June.

A bright flower, not uncommon in rich, moist woods and along river-banks from Connecticut to Georgia, west to Minnesota, Arkansas, and Texas. Found 3,500 feet high in Virginia.

### Wild Parsnip

*Pastinaca sativa*.—*Family*, Parsley. *Color*, yellow. No involucre under the umbels of yellow flowers. *Leaves*, pinnately compound. *Stem*, stout, tall, smooth, grooved.

This is the cultivated parsnip, now escaped from gardens and found in a wild state everywhere. It is fed to cattle, especially in Europe, where the root is said sometimes to reach the length of 4 feet. Rich soil in open, waste places.

### Whorled Loosestrife. Crosswort

*Lysimachia quadrifolia*.—*Family*, Primrose. *Color*, deep yellow, spotted or lined with red. *Calyx*, 5 or 6-parted. *Corolla*, wheel-shaped, deeply parted, axillary, on long, slender peduncles. *Leaves*, generally in whorls of fours, sessile, occasionally a pair opposite, with leaflets oblong to lance-shaped, pointed at apex, black-dotted, smooth. June to August.

The flowering stem presents a regular appearance. 4 leaves, rarely 5, or less, grow at even distances in whorls along the stem, and 2 or more star-shaped blossoms, small, on long, thread-like peduncles, spring from the leaf-axils. 1 to 2 feet high. Its symmetry and slight color make it pleasing. In moist or sandy soil, in thickets or along roadsides. New Brunswick to Minnesota, south to Georgia. (See illustration, p. 199.)

*L. terréstris*.—*Color*, yellow, with dark markings. *Flowers*, much like the last, but in their inflorescence they differ, being collected in long, terminal, bracted racemes. On slender pedicels, but shorter than the preceding. *Fruit*, a round pod. *Leaves*, opposite, long, narrow, broader at base, acute at apex, black-



WHORLED LOOSESTRIFE (*Lysimachia quadrifolia*)  
(See page 198)

## HARPER'S GUIDE TO WILD FLOWERS

dotted. *Stem*, 1 to 2 feet high, straight, smooth, branched above, bearing numerous flowers in the terminal raceme. Tiny bulbs often occur in the leaf-axils. July to September.

The moneywort of our gardens, sometimes called yellow myrtle, belongs to this genus. It grows trailing on the ground, with roundish, bright-green leaves and yellow blossoms. It escapes from gardens and becomes wild in fence-corners and fields. A bright flower, of low meadows, swamps, and moist thickets. Newfoundland south to Georgia and Arkansas.

### Fringed Loosestrife

*Steironëma ciliatum*.—Family, Primrose. *Color*, yellow. *Calyx* and *corolla* united below, deeply 5-parted above, the divisions spreading. *Flowers*, on long, filiform peduncles, grouped with small leaves, axillary, opposite. *Leaves*, opposite, often so close together as to seem whorled, ovate or oblong, sharply pointed at apex, rounded or inclined to be heart-shaped at base, all on long, hairy-fringed petioles, their margins slightly fringed. June to August.

Low grounds and moist thickets from Nova Scotia south to Georgia, west to Arizona. Found 6,300 feet high in mountains of North Carolina.

### Butterfly-weed. Pleurisy-root

*Asclépias tuberosa*.—Family, Milkweed. *Color*, yellow, a deep-orange shade. *Flowers*, in terminal umbels or scattered along the branches. *Leaves*, rough, hairy, sessile, or with short petioles, linear to ovate. Grayish *pods* are produced which are pedicelled and conspicuous. June to August.

The only yellow species of this genus. It grows freely in clumps with rough and hairy stem and leaves, 1 to 2 feet tall. Brilliant and beautiful, it colors the fields, especially southward, with orange. Its juice is not milky. Dry fields and roadsides. (See illustration, p. 201.)

### Common Gromwell

*Lithospérnum officinale*.—Family, Borage. *Color*, yellowish or white. (See chapter on White Flowers, p. 119.)

*L. Gmelini*.—*Color*, yellow. *Calyx* and *corolla*, tubular, with spreading, divided border. *Flowers*, large, showy, all with peduncles in terminal spikes, leafy-bracted. *Leaves* and *stem*, bristly-rough. April to June.

Pine barrens and wet, sandy ground from New York to Minnesota and southward.



BUTTERFLY-WEED (*Asclepias tuberosa*)  
(See page 200)

## HARPER'S GUIDE TO WILD FLOWERS

### False Gromwell

*Onosmòdium virginianum*.—Family, Borage. *Color*, greenish yellow. The 5 long, narrow lobes of the tubular corolla are bristly on the outside. *Stamens*, 5, with somewhat arrow-shaped, pointed anthers. *Pistil*, with a thread-like, projecting style. *Fruit*, 4 one-seeded nutlets. *Leaves*, rough, about 2 inches long, narrow, the lower tapering at base, sessile, with parallel veins. Racemes of flowers terminal, at first, like most of this genus, curled under, straightening as the flowers unfold. Summer.

Dry banks and rocky hills, from Massachusetts to Florida.

### Giant Hyssop

*Agástache nepetoides*.—Family, Mint. *Color*, pale greenish yellow. *Calyx*, bell-shaped, with 5 unequal teeth. *Corolla*, 2-lipped, the upper lip 2-lobed, lower 3-divided, with the middle lobe wavy, toothed. *Stamens*, 4, in pairs, which cross one another. *Flowers*, in terminal spikes, 2 to 6 inches long, thickly interspersed with long, pointed bracts. *Leaves*, coarsely toothed, petioled, ovate, acute.

A very tall mint, 6 feet high or less, with a stout, smooth, sharply 4-angled stem. Vermont to North Carolina, west to Texas.

### Horse Mint

*Monárdia punctàta*.—Family, Mint. *Color*, yellow, spotted with purple. *Calyx*, tubular, downy, especially hairy in throat, with short teeth. *Corolla*, tubular, its limb 2-divided, the upper lip long, narrow, arching over the stamens, deeply spotted with purple; the lower unequally 3-divided, spreading. *Flowers*, in heads or clusters, axillary or terminal, surrounded by and mixed with floral bracts which are more showy than the flower, yellow and purple. *Stem*, perennial, rough, hairy, 2 to 3 feet high. *Leaves*, lance-shaped or linear, acute at both ends, petioled, distantly serrate. Small ones, sessile, are clustered in the axils of the larger ones. July to October.

Dry fields, open woods from Long Island and southern New York to Florida, and westward to Wisconsin and Texas.

### Horse Balm. Stone-root. Rich-weed

*Collinsònia canadén sis*.—Family, Mint. *Color*, lemon yellow. *Calyx*, 2-lipped, the upper lip 3-toothed, the lower 2-cleft. *Corolla*, 1 inch long, tubular, with 4 upper, almost equal lobes, and 1 lower, quite long and large, pendent, cut and fringed. *Stamens*, 2, sometimes 4, standing well out from the flower. *Flowers*, on

## YELLOW GROUP

slender pedicels, in loose, long panicles, showy. *Leaves*, opposite, ovate, toothed, pointed, petioled. July to September.

Whole plant strongly lemon-scented. Perennial, 1 to 3 feet high, in rich, moist, shady woods, in all the Atlantic States and westward to Wisconsin and Missouri.

### Strawberry Tomato. Ground Cherry

*Physalis pruinosa*.—Family, Nightshade. *Color*, yellow. *Calyx*, 5-toothed, ribbed and angled, becoming much swollen and covering the *fruit*, which is a small, tomato-like, yellow berry, edible, somewhat used for making jam. *Corolla*, funnel-form, the limb wheel-shaped, with 5 divisions. *Anthers*, yellow, tinged with purple. *Plant*, hairy and viscid. *Leaves*, rather large, pointed, heart-shaped at base, indented, with wavy outlines between the strong teeth, on long, hairy petioles. July to September.

Springing up in cultivated soil, near the coast, from Massachusetts and Long Island, south to Florida. There are several species, most of which grow farther south than New York and New Jersey, mostly in dry or sandy ground.

### Tomatillo

*P. ixocarpa* bears purple *fruit*, and is often cultivated. Introduced from the Southwest. *Corolla*, yellowish or greenish, darker in the center.

### Clammy Ground Cherry

*P. heterophylla*.—This is the most common as well as variable of the genus. The plant is weak, and the branches spread, lying close to the ground or standing more erect. *Corolla*, greenish yellow, and berry yellow. *Leaves*, somewhat triangular in shape, deeply toothed, with hairy petioles. *Plant*, hairy, rank-scented.

One or two of these plants spring up in my garden on Long Island every year, and, if let alone, grow to great size, 3 or 4 feet in diameter. Where do they come from? They have never been planted, and the neighbors do not have them. In cultivated soil along the coast.

### Black Henbane

*Hyoscyamus niger*.—Family, Nightshade. *Color*, dull brownish yellow, marked with purple veins. *Calyx*, bell-shaped, 5-lobed. *Corolla*, with a 5-lobed, plaited border, the tube funnel-form. *Capsule*, surrounded by the calyx, opens by means of a round lid near the top. *Flowers*, sessile, in the axils of the leaves, in 1-sided, leafy spikes. *Leaves*, oblong in outline, deeply cut or

## HARPER'S GUIDE TO WILD FLOWERS

lobed, acute, sessile, the upper clasping the stem, hairy along the midrib.

A rank-scented, poisonous plant. One of its common names, insane-root, would indicate that eating of its root might produce insanity. In waste places, sandy soil, from Nova Scotia to New York and westward to Michigan.

### Common Mullein

*Verbáscum Thápsus*.—Family, Figwort. *Color*, yellow. *Corolla* and *calyx*, 5-parted. *Flowers*, in terminal, thick spikes, much crowded. *Leaves*, thick, velvety, long, acute, alternate.

A well-known, tall, excessively woolly plant with heavy spikes of large blossoms. The leaves run down the main stem, producing *wings*. The flowers last only a day. In dry fields or waste places; a weed. I have seen this plant cherished in pots in houses in Germany, under the name of the "American velvet plant," and have been called upon to admire the extremely soft, beautiful leaves.

### Moth Mullein

*V. Blattária* (see in chapter on White Flowers, p. 124).—*Color*, white or yellow.

*V. Lychnítis*.—*Color*, yellow or white. (See p. 124.)

### Butter-and-eggs. Ramstead. Toadflax

*Linária vulgáris*.—Family, Figwort. *Color*, yellow and orange. *Corolla*, 2-lipped with the throat closed by a projection of the lip called a *palate*. The lower lip has a long, slender spur. *Flowers*, in racemes, growing closely together. They have a fragrance suggestive of a dairy. *Leaves*, long, narrow, entire, sessile, numerous. *Stem*, sometimes thick and fleshy. Summer.

A weed in many grounds, growing in dry soil in fields and along roadsides.

### Golden Hedge Hyssop

*Gratióla áurea*.—Family, Figwort. *Color*, deep yellow. *Calyx* divisions toothed, leaf-like. *Corolla* of the snapdragon type, the upper lip 2-cleft, the under 3-lobed. There are 2 perfect and 2 sterile *stamens*. 2 bracts under the calyx. *Leaves*, ovate or oblong, broad at base where they clasp the branches, serrate at apex. *Flowers*, in the leaf-axils of the smooth, delicate, weak branches which grow upright from creeping stems, 6 to 18 inches long. June to September.

A bright, pretty plant, growing in mats or tufts on the



DOWNY FALSE FOXGLOVE (*Gerardia flava*)  
(See page 206)

## HARPER'S GUIDE TO WILD FLOWERS

edges of Long Island fresh-water bays, and on banks of brooks, often quite in water, blossoming all summer. Swamps or wet, sandy shores from Maine to Virginia and westward.

*G. virginiana*.—Color of corolla, in tube yellowish, in limb white. (See White Flowers, p. 127.)

### Downy False Foxglove

“The foxgloves and the fern—  
How gracefully they grow,  
With grand old oaks above them  
And wavy grass below!”

*Gerardia flava*.—Family, Figwort. Color, yellow. Leaves, the lower often deeply and irregularly cut; upper entire, oblong, or lance-like. A beautiful, bell-like flower, large, with a tubular, 5-cleft, short calyx, and 5 broad, spreading, rounded corolla-lobes ending a long, somewhat inflated tube which is woolly inside. The corolla slips easily off its receptacle. The 4 stamens, their anthers nodding toward one another in pairs, are bearded. Plant 2 to 4 feet high. The buds are especially pretty, often with a slight tinge of pink in their round heads. July and August. (See illustration, p. 205.)

### Smooth False Foxglove

*G. virginica* is taller, 3 to 6 feet, and lacks the pubescence of the preceding. The showy, large blossoms (2 inches long) mingle with graceful foliage, the lower leaves twice cut into fine divisions, the upper lance-shaped and entire.

Both the downy and smooth may sometimes be found together on hillsides or in light, thin woods. Picked, they afford little satisfaction, because the leaves and stems quickly turn black. Root parasitic.

### Yellow Gerardia

*G. pedicularia* is a leafy, branching species, 2 or 3 feet high. The leaves are very much cut, with dissected and toothed lobes, the lower large, the upper quite small. The stems bearing the pretty yellow bells are longer than the calyx-lobes. The latter are irregularly cut and hairy. The corolla is sticky on the outside. August and September.

This graceful, handsome herb is found in light woods along our entire Atlantic border. Some such spots in Long Island are colored yellow with masses of these foxgloves. (See illustration, p. 207.)



YELLOW GERARDIA (*Gerardia pedicularia*)  
(See page 206)

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### Cow Wheat

*Melampyrum lineare* (name means "black wheat," from the dark seed).—*Family*, Figwort. *Color*, greenish white and yellow. *Calyx* and *corolla*, tubular, the calyx with bristly, rather long teeth, the corolla 2-lipped, the upper lip cream or dull white, arched, covering the stamens; lower 3-lobed, nearly  $\frac{1}{2}$  inch long, yellow. *Flowers*, toward the top, single, in the leaf-axils. *Stamens*, 4. *Pistil*, 1. *Leaves*, opposite, linear or lance-shaped, very pointed at apex, rounded or truncate at base, on short petioles. Those below entire; those among the flowers having 2 to 6 pointed, almost bristly teeth at their base. May to August.

Open woods, in dry soil from Nova Scotia south to Georgia, west to Minnesota. One of our commonest plants of thin woods, including pine woods; low, shrubby, branched, with flowers and floral leaves hardly to be distinguished from one another in color (leaves being pale yellowish green), crowded toward the top of the stem.

### Lousewort

*Pedicularis lanceolata*.—*Family*, Figwort. *Color*, yellow. *Calyx*, 2-lobed, the lobes with leafy margins. *Corolla*, 2-divided, the upper division helmet-shaped, called a *galea*, deeply arched, nearly meeting the straight, ascending lower lip. *Flowers*, in crowded, leafy spikes. *Stem*, simple or branched, 1 to 3 feet high, erect, stout. *Leaves*, oblong or lance-shaped, 2 to 5 inches long, pinnately lobed, the lobes sharply toothed. *Floral leaves* bract-like. A species taller than the common wood betony, which it resembles in both leaves and flower-spikes. August and September.

A swamp species, from Massachusetts to Virginia, westward to Ohio and Nebraska.

### Wood Betony

*P. canadensis* (see under Variegated Flowers, p. 374.)

### Yellow Rattle

*Rhinanthus Crista-galli*.—*Family*, Figwort. *Color*, yellow. *Calyx*, 4-toothed, much swollen in fruit. *Corolla*, 2-lipped, a small, horizontal purple tooth each side of the apex of the upper lip. Lower lip 3-lobed, its lobes spreading, about  $\frac{1}{2}$  inch long. *Seeds*, when ripe, broadly winged. They rattle in the enlarged, dry calyx, whence the popular name. *Flowers*, crowded in 1-sided spikes, nearly sessile. *Leaves*, opposite, linear, coarsely toothed, the floral leaves bristly-tipped. Plant turns black in drying.

Near the coast in New England. In dry, sandy soil.

## YELLOW GROUP

The plant may be identified by fine, black lines along the stem, also by the violet teeth of the upper lip of corolla, while upon the lower lip there is a black spot near the base.

### Chaff-seed

*Schwałbea americana*.—Family, Figwort. Color, yellowish purple. (See chapter on Purple Flowers, p. 350.)

### Common Bladderwort

*Utricularia vulgaris*.—Family, Bladderwort. Color, bright yellow. Leaves, under water, finely cut, bearing little bladders. Summer.

The bladderworts are insectivorous, aquatic plants. The bladders scattered among the leaves serve two purposes—to float the plant at time of flowering and to entrap minute water-animal food.

In *U. vulgaris* the bladders are large. They are furnished with a hinged lid, and with hairs turning inward, so as to prevent the escape of a larva which may have ventured within the mouth of the bladder. It is said that the hairs keep up a wavy motion and so create a sort of current which sucks the creature in if it ventures near these traps.

The bright yellow blossom, coming to the water's surface on a scape  $\frac{1}{2}$  foot long, has a 2-lipped corolla, like some of the figworts. The leaves are very much dissected, and when first pulled up hang stringily together. Take this unpromising plant home, place it in a basin of water, pick off the mud and slime that cling to it, and you have a beautiful botanical specimen. Slip the pressing-paper under while in the water, and dry with several thicknesses of paper.

*U. subulata* is a very small species. A short *scape*, 3 or 4 inches high, bears yellow blossoms, half a dozen or so, on hair-like pedicels. The *leaves* are grass-like, not dissected.

*U. inflata*.—In this species the otherwise naked flower-stalk bears, about the middle, a whorl of 5 to 9 *leaves* whose petioles are swollen and bladder-like, tipped with finely dissected leaf-blades, 1 to 2 inches long. These are very strange looking leaves, but the swollen petioles, with bladders plentifully interspersed, make the plant float freely and bring the flowers to the top. Lower leaves finely dissected, bearing small bladders. Upper lip of

## HARPER'S GUIDE TO WILD FLOWERS

*corolla* large, helmet-shaped. *Flowers*, 3 to 10, in irregular racemes at ends of branches. July to September.

In ponds, coves, and still water from Maine to Texas, near the coast. I have found this bright-flowered species in Greenwood Lake, New Jersey, near the shore, its yellow flowers dotting the surface of the water.

### Horned Bladderwort

*U. cornuta*.—The yellow, fragrant flowers of this species differ from most of the others in that the lower lip of the *corolla* is the larger, helmet-like, the upper being long, narrow, erect. *Spur*, long, curved downward. *Flower-stalk* stout, straight, with few or no leaves and few bladders. *Leaves*, when they do occur, entire. *Scape* reaches the top of the water for flowering, 3 to 14 inches high, rooted in bogs or the muddy shores of ponds. May to September.

Newfoundland to Ontario and Minnesota, south to Florida and Texas. There are one or two purple-flowered species which will be noticed.

### Squaw-root. Cancer-root

*Conopholis americana*.—Family, Broom-rape. *Color*, pale, tawny yellow. *Corolla*, 2-lipped, tubular, enlarged at base. Upper lip concave, notched; lower, 3-parted, open. *Calyx*, 4 to 5-toothed, its tube split down on one side, 2 bractlets growing at the base. No leaves, but *stem* covered with yellowish, fleshy scales, suggesting a cone, from which the generic name is derived. Parasitic, growing mostly among the decaying, fallen leaves of oaks, 3 to 6 inches high. *Stem*, as thick as a man's thumb, fleshy. Curious, as all of this family, but possessing no beauty.

### Golden Aster

*Chrysopsis falcata*.—Family, Composite. *Color*, golden yellow. Both disk and ray flowers present, the disk flowers pistillate, both deep yellow. *Flowers*, large, resembling asters, in loose corymbs at ends of branches. *Leaves*, stiff, entire, narrow, long, sessile, alternate, crowded irregularly on the stem, hairy or smooth, often curved and scythe-shaped. The plant may be rather delicate in stem and leaves, or it may be rough, woolly, thickened, and misshapen. 8 to 10 inches high. July and August.

In sandy soil from Massachusetts to New Jersey. In pine barrens. Common. (See illustration, p. 211.)

### Maryland Golden Aster

*C. marianna*.—Frequently found growing with the above, a smooth, silky plant, with broader, oblong or lance-shaped, acute



GOLDEN ASTER (*Chrysopsis falcata*)  
(See page 210)

## HARPER'S GUIDE TO WILD FLOWERS

*leaves*, which are sessile above, on narrow and short petioles below. Heads in small corymbs. Whole plant covered with soft, silky, weak, woolly hairs when young, becoming smoother with age. Heads of *flowers* in flattish clusters, on glandular peduncles. August and September.

These are handsome flowers when in bloom, ragged-appearing when the pappus is loosely dropping out; adorning many sterile spots from Massachusetts and Long Island southward to Pennsylvania not far from the coast. (See illustration, p. 213.)

### Golden-rods

Golden-rods need no general description. They are as well known, common, and admired as daisies. As the blue hepatica is the sign of coming spring, so the golden-rod predicts the fall. During the early summer, green stems arising from the perennial roots spring up everywhere. No ground is so hard and dry as to forbid them. Toward the last of July and first of August, flecks of yellow appear on the tips of the branches. These spread downward, till, by September, the fields are aflame. This plant is one of bright, generous bloom. Sometimes it is tall and straight—a poplar among flowers, a rod of gold. Again it is a graceful, falling fountain of color, or a long, wavy, showy, pampas-like plume. Graceful or stiff, it is a flower to be proud of—a truly national flower, strictly indigenous. We may understand its worth when we try to imagine what our fields, roadsides, and woods would be if bereft of golden-rods. Certainly our American autumn would lose one chief element of beauty.

They belong to the genus *Solidago*, and few of the species have separate common names. The leaves are very variable, and the manner of stem growth must be noticed for the identification of species. All are yellow except *S. bicolor*, a white species found on the edges of dry woods. Our roadsides are lined with them. They are communistic or found singly. They are weeds, of course, but not troublesome like wild carrot and daisy. I never heard a farmer exclaim against the golden-rod, while I have seen his wife's vases and fireplaces filled with its masses of yellow bloom.

“A worthless plant, a flaunting weed!

Abundant splendors are too cheap.”

Neighbor, not so! unless, indeed,

You would from heaven the sunsets sweep,



GOLDEN ASTER (*Chrysopsis mariana*)  
(See page 210)

## HARPER'S GUIDE TO WILD FLOWERS

And count as mean the common day.  
Meseems the world has not so much  
Superfluous beauty that we may  
Blight anything with scornful touch.

"In times long past the harebell's grace  
I blent with this resplendent spray;  
And one I loved would lean her face  
Toward their contrasted hues, and say,  
The sun-like gold, the heavenly blue,  
I know not which delights me most!"  
Sacred are both, dear heart, to you:  
They lift your feet from earth's dim coast."

—LUCY LARCOM.

The flowers have rays, and all grow together in racemes or corymbs, or in clusters along the stem.

*Solidago squarrosa*.—Family, Composite. A stout-stemmed species, 2 to 5 feet high. Leaves, toothed, veiny, large, with margined petioles. Heads of flowers large, clustered in leafy, compound, elongated spikes. August to October.

Mountains of Virginia and northward to the hills of Vermont.

*S. latifolia* has a crooked, zigzag stem, 1 to 3 feet high, smooth, simple or branched. Leaves, thin, large, 6 inches or less in length, sharply toothed, acute at apex and base. Flowers, with 3 or 4 rays, the heads clustered in axils of the leaves or raceme-like at ends of branches.

Southward among the mountains, northward in dry woods.

*S. caesia*.—A common golden-rod. It is late in flowering. Stem, smooth, or with a soft bloom which rubs off. Flowers, pale yellow, closely clustered along the stem, in the axils, and compactly paniced at the top. Leaves, sessile, long, narrow, serrate, feather-veined. A delicate, graceful, upright plant. August to October.

In deciduous forests from Maine to Minnesota and southward.

*S. hispida*.—The manner of growth of this species is similar to the white golden-rod (*S. bicolor*, p. 134). Flowers, in small clusters in the upper leaf-axils, also in a crowded, narrow panicle (a *thyrus*) at the top of the stem. Leaves, the lower oval or obtuse, short-petioled, softly hairy, toothed; upper, sessile, lance-



GOLDEN-ROD (*Solidago rugosa*)  
(See page 216)

## HARPER'S GUIDE TO WILD FLOWERS

shaped, acute. Rays, deep yellow. Disk, lighter colored. *Stem*, stout, very hairy,  $1\frac{1}{2}$  to 3 feet high. July to September.

Dry and rocky woods or banks in all the Eastern States as far south as Georgia. More frequent northward, and found 2,000 feet high in the Catskills.

*S. speciosa*.—A late bloomer. Its *leaves* are a polished, dark green, the lower with margined petioles, the upper sessile; lower, broad, a foot or less long, all acute at apex, toothed, pinnately or feather veined. The *stem* is tall, 3 to 6 feet high, and is crowned with a splendid, ample panicle of bloom. Plant roughly hairy. September and October.

A common species, in rich soil in dry, open woods, somewhat local, from Massachusetts to Minnesota and southward.

*S. rugosa*.—*Stem*, stout, tall, 1 to 6 or 7 feet high, generally branched at top. *Leaves*, large, petioled below, smaller, oblong, or ovate or lance-shaped above, all rough, especially underneath along the veins. *Flowers*, in 1-sided, drooping panicles, accompanied with small leaves. July to November.

In dry or damp soil, fields or edges of thickets, in all the Eastern States. Common, and very variable. Generally a low-growing species. (See illustration, p. 215.)

*S. ulmifolia*.—A low, early species, 1 to 4 feet high. *Leaves*, broad, oblong to lance-shaped, sharply serrate, thin, acute, softly hairy underneath. *Flowers*, in recurved, spreading panicles, with small leaves interspersed. August and September.

Dry woods and copses, Maine to Minnesota, south to Georgia.

### Sweet Golden-rod

*S. odora*.—*Stem*, slender, sometimes reclining, 2 or 3 feet long. *Leaves*, bright green, entire, long, narrow, dotted. Panicle of *flowers*, small, 1-sided, broad, short, rather a dull yellow. When the leaves are crushed they usually give forth a pleasant, anise-like fragrance. September and October.

Dry soil, borders of woods and thickets from New Hampshire and Vermont to Florida, west to Missouri and Texas. (See illustration, p. 217.)

*S. puberula*.—*Stem*, smooth or somewhat softly hairy,  $1\frac{1}{2}$  to 3 feet high. Basal *leaves*, 2 to 4 inches long, narrowed into a mar-



SWEET GOLDEN-ROD (*Solidago odora*)  
(See page 216)

## HARPER'S GUIDE TO WILD FLOWERS

gined petiole. Upper leaves small, sessile, extending into the panicle of flowers. Plant covered with a soft, powdery bloom. *Flowers* crowded into a dense, terminal spike or thyrsus. August to October.

Dry or poor soil from Maine to Florida and Mississippi near the coast.

*S. stricta*.—*Stem*, smooth, tall, wand-like, 2 to 8 feet high, not branched, covered with very small, linear, thick, appressed (laid flat against the stem) *leaves*. *Flowers*, in a slender spike or raceme. Leaves at base, on long petioles, broad at apex, tapering. August to October.

Pine barrens of New Jersey and southward. It is impossible to mistake this species, which has a slender, unbranched, tall, graceful appearance. It might be called willow-leaf golden-rod.

*S. fistulosa*.—In the same pine barrens we may find the *fistulosa*, tall, 3 to 7 feet, but rough, hairy, stout, and simple below, often branched above. *Leaves*, all sessile, numerous, larger below, quite small above, rough on midrib beneath and along the margins. Heads of bright-yellow *flowers* in a dense, pyramid-shaped, recurved panicle. Flowers with few and short rays. August to October.

Pine barrens, sandy soil, New Jersey to Virginia and southward.

### Gray or Field Golden-rod

*S. nemorális*.—A common species covering barren fields, and one of the least pretty. It is low, from 6 inches to 2 feet high. *Stem*, simple, rough, covered with a gray down which is also found on the leaves. *Flowers*, in a heavy, 1-sided compound panicle. *Leaves*, long-petioled below, crenately toothed; the upper much smaller. July to November.

Dry soil in open fields or along roadsides, in waste places.

### Yellow Weed

*S. canadénis*.—A common species, coarse, rather tall, limit 6 feet, with spreading, recurving, 1-sided racemes of *flowers*, making a large, showy panicle. *Leaves*, 3-ribbed, lance-shaped, roughish, toothed, sessile above, petioled below, thin. Heads small, subtended by pale, almost straw-color bracts. August to November.

Dry soil, in open places.



**BEACH GOLDEN-ROD (*Solidago sempervirens*)**  
(See page 222)

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### Early Golden-rod. Plume Golden-rod

*S. junccea*.—This species may be seen from June to November. It may easily be known by the fringed petioles of the lowest, sharply toothed leaves. Upper leaves narrow, entire, sessile. Stem, 1½ to 4 feet high, commonly about 2 feet. Flowers have small rays, and are arranged in close, heavy, drooping, corymb-like panicles upon the upper sides of the branchlets.

A common form, in dry fields from far north, Hudson Bay to North Carolina.

*S. serotina*.—Stem, tall, thick, rough, from 2 to 7 feet high. Leaves, tapering, very acute, thin, sharply toothed, smooth above and beneath. Flowers, in a large, spreading, handsome panicle. July to September.

In rich or poor soil, thickets, copses, fields, etc.

Var. *gigantea* is 5 to 8 feet high. A large, flowing panicle of bright-yellow flowers caps the stout, rough stem.

Abundant along fences, in fields and waste places.

### Bog Golden-rod

*S. uliginosa*.—Stem, unbranched, smooth below the flower-panicle, 2 to 4 feet high. Leaves, lance-shaped or oblong, much pointed, finely toothed, rough on the margins, the lower 4 to 9 inches long, with winged petioles. Flowers, small, much crowded in a long, terminal panicle. July to September.

Bogs, swamps, wet shores of streams from Newfoundland to New Jersey and Pennsylvania, in mountains to North Carolina.

*S. pátula*.—Stems, smooth, sharply 4-angled, often 7 feet high. Leaves, linear, smooth beneath, very rough above. This unusual roughness of the upper surfaces of the leaves will identify the species. Leaves pinnately veined, those below very large, 3 to 16 inches, finely toothed. Upper ones entire, small, lance-shaped. Flowers, numerous, on separate and spreading branches which have leafy bracts.

In swamps, Maine to Minnesota south to Georgia and Texas. In mountains 5,000 feet high in North Carolina.

*S. Elliottii*.—Stem, smooth, stout, 3 to 6 feet high, simple as far as the flowers begin, then, perhaps, branched. Leaves, not much toothed, oblong or lance-shaped, obtuse at base, without



GOLDEN-ROD (*Solidago graminifolia*)  
(See page 222)

## HARPER'S GUIDE TO WILD FLOWERS

petioles, rough along the margins, downy along the veins beneath. *Flowers*, in showy, not crowded, spreading racemes.

Swamps, Massachusetts to North Carolina and Georgia, near the coast.

*S. neglēcta*.—*Stem*, smooth or roughish, 2 to 4 feet high, leafy, acute, mostly entire, the lower on long, margined petioles. *Flowers*, in a rather dense raceme, on spreading branches, on the upper side, recurved. August to October.

Swamps and banks of running streams, New England to Maryland and Illinois.

*S. argūta*.—*Leaves*, thin, large, serrate, entire on the branches, acute, the lower with margined petioles; the upper linear or lance-shaped. *Flowers*, a greenish yellow, with 6 or 7 large rays, open, spreading, in rather short and loose racemes, making an elongated panicle. *Stem*, smooth and sharply angled. August and September.

Open woods or moist thickets, Maine to Michigan and southward.

### Beach Golden-rod

*S. sempervīrens*.—*Color*, golden yellow. *Flowers*, large, closely bunched, in various shapes, broad or elongated, or dense and thick. *Stem*, tall, or low and spreading. *Leaves*, thick, fleshy, lance-shaped, smooth, entire, the lower ones slightly clasping, upper smaller, less fleshy. Stout-stemmed, very leafy and bushy. August to November.

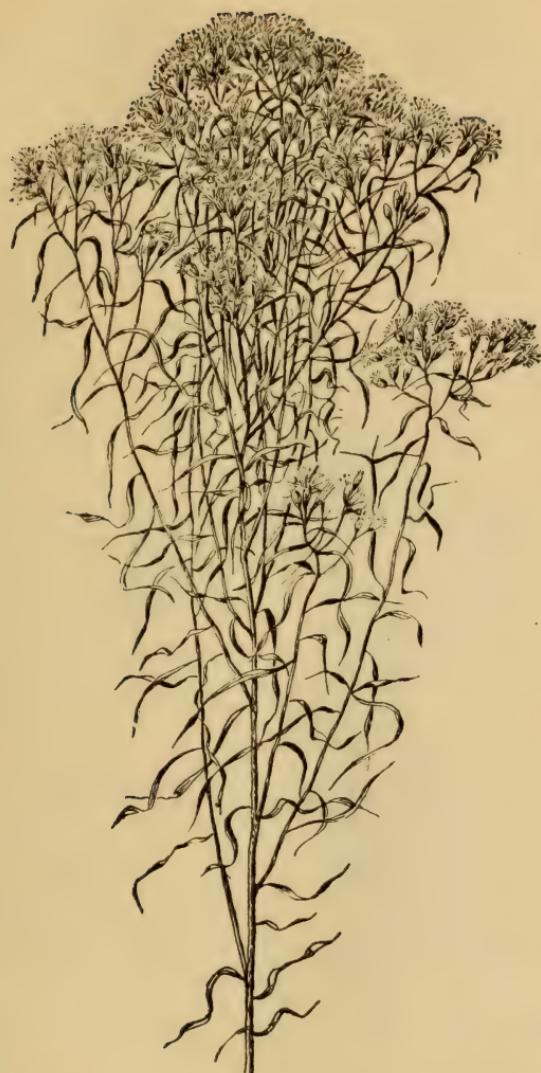
One of the handsomest of the golden-rods, because presenting such a mass of golden color in its blossoms. Lining the salt marshes on shores of Long Island bays and all the Eastern States near the coast. (See illustration, p. 219.)

*S. grāmīnifōlia*.—In this and the next species the flowers are massed in flat corymbs instead of elongated racemes. *Leaves*, 3-ribbed, long, narrow, smooth, except for a roughness along the veins and margins. Heads of flowers of a light yellow, in wide-spreading masses. *Plant*, as a whole, pretty, and of a light, graceful foliage. August to October.

It grows along roadsides, and is often covered with dust. 2 to 3 feet high. Very common along the coast to New Jersey. (See illustration, p. 221.)

### Slender-leaved Golden-rod

*S. tenuifōlia*.—Much like the preceding, but smaller, with slenderer leaves and branches, from 1 to 1½ feet high. *Leaves*,



SLENDER-LEAVED GOLDEN-ROD (*Solidago tenuifolia*)  
(See page 222)

## HARPER'S GUIDE TO WILD FLOWERS

1 to 3 inches long, 1-nerved, often with very small ones clustered in the axils of the larger. *Flowers* grow in little buttons or clusters, all of which together make a flat-topped corymb. Often grows with the last. August to October.

Both are common along the coast in sandy soil from Massachusetts to Florida. Some botanists classify these two in a separate genus, *Euthamia*. (See illustration, p. 223.)

### Ox-eye

*Heliópsis helianthoides*.—*Family*, Composite. *Color*, yellow. *Leaves*, opposite, acute at apex, ovate to lance-shaped, with petioles, toothed. August.

This yellow daisy is not to be confounded with the commoner purple-coned daisy. It may easily be mistaken for a sunflower, but has fewer and narrower rays, about 10. The heads of flowers are showy on the ends of branches. 1 to 4 feet high. New York southward and westward.

### Elecampane

*Ínula Hélénium*.—*Family*, Composite. *Color*, yellow. *Leaves*, woolly underneath, large, undivided, alternate, serrate, the lower with petioles, the upper sessile and clasping. August.

Stout, coarse plants, 4 to 5 feet high, with large flowers possessing long and narrow rays around heavy, yellow disks. Root thick and mucilaginous, used in veterinary practice; growing often in clumps, like sunflowers, near barn-yards or in old fields or along lanes and roadsides. Very common.

### Leafcup

*Polymnia canadensis*.—*Family*, Composite. *Color*, pale yellow. *Leaves*, large, thin, the uppermost 3 to 5-lobed, petioled; lower more deeply cut, pinnatifid. Heads small, in panicled, flat clusters. Generally both ray and disk *flowers* present, but rays small and occasionally wanting. Around the flowers are about 5 large involucral scales, leaf-like in character, making a sort of cup in which the flower sits. Smaller scales in an inner row partly fold over the achenes in fruit. Flowers in panicled, flat clusters. A tall plant, 2 to 5 feet high, with hairy stems. June to September.

Western Vermont to Connecticut and westward, in shaded, cool woods and ravines.

### Spiny Cocklebur

*Xánthium spinosum*.—*Family*, Composite. *Color*, greenish yellow. Staminate and pistillate *flowers* in different heads, the for-



PURPLE CONE-FLOWER (*Rudbeckia hirta*)

(See page 226)

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mer in small heads above, making short spikes, the latter axillary below. *Corolla*, attending the single pistil, long, thread-like. Pistillate heads covered with stout, hooked spines, which, in fruit, make a rough, pointed, beaked, bristly bur. *Stem* 1 to 3 feet high, thickly covered with lobed or toothed, alternate *leaves* and stout branches. There are spines at the base of the leaves, slender, of a yellow color, 3-parted. August to November.

An imported weed too well known. In waste places, Maine to Florida west to Illinois.

### Hedgehog Burweed

*X. echinatum*.—This is a plant of similar growth and habit, found in waste places near the coast. The bur is large, strongly 2-beaked at the top, covered with rigid, coarse hairs and bristles. The *stem* is often spotted with brown. *Leaves*, coarse and thick.

*Tetragonothèca helianthoides*.—*Family*, Composite. *Color*, pale yellow. *Leaves*, opposite, sessile, their bases sometimes meeting and joining around the stem, coarsely toothed. *Flowers*, in large heads, on peduncles terminating the simple flower-stem. Rays present, 6 to 9, 1 inch long. Underneath the flower-heads, 4 broad, involucral bracts unite and make a 4-angled cup around the flower. A second row within is composed of small, chaffy scales. May and June.

Virginia, southward.

### Purple Cone-flower. Black-eyed Susan

*Rudbékia hírta*.—*Family*, Composite. *Color* of rays yellow, with a chocolate-brown, cone-shaped disk. Whole plant rough, hairy. *Leaves*, mostly entire, the upper lance-shaped, sessile; the lower broader, with petioles. In dry ground, fields, and waysides. June to September.

This pretty weed has been brought to the East in clover-seed from Western fields. It grows 1 to 2 feet high, and colors whole fields with bright yellow, possessing strong roots and an aggressive nature, so that, once established, it is difficult to eradicate. New Jersey farmers regard the cone-flowers with disapproval, but city boarders love them, especially mixed with white daisies, and fill large jardinières with the golden blooms. (See illustration, p. 225.)

### Cone-flower. Thimble Weed

*R. laciniata*.—*Color* of both rays and disk, yellow. Disk strongly columnar. *Leaves*, alternate, the lowest pinnate, the



NARROW-LEAVED SUNFLOWER (*Helianthus angustifolius*)  
(See page 228)

## HARPER'S GUIDE TO WILD FLOWERS

leaflets cut into 3 to 7 divisions; the upper irregularly 3 to 5-parted. This cone-flower of the woods and thickets may be known from the commoner weed by its yellow disk, the other having a brown disk. *Stem*, smooth and tall, 2 to 7 feet. The *flowers* are on long peduncles, and their long, deep-yellow rays are drooping. Low, damp thickets and open woods. July to September.

From Quebec to Florida and west to New Mexico.

### Gray-headed Cone-flower

*Lépachys pinnata*.—*Family*, Composite. *Color* of rays, light yellow; of disk, gray. Single heads of *flowers* large, showy, with drooping rays 1 to 2 inches long. The columnar disk is very prominent, broad, and large. *Leaves*, alternate, pinnately divided, mostly low down on the stem, 3 to 7 leaflets. *Stem*, naked above, grooved, about 4 feet high, stout, the whole plant covered with a grayish down. June and July.

Dry fields and edges of woods, from western New York to Minnesota and southward. The difference between this species and the two preceding cone-flowers is unmistakable. All the long rays of the flower droop away down, exposing the whole extent of the broad cone.

### Narrow-leaved Sunflower

*Helianthus angustifolius*.—*Family*, Composite. *Color* of rays, bright yellow; disk, a purplish brown. *Leaves*, long, linear, entire, sessile, alternate on the stem above, opposite below, their edges rolled backward, noticeably when dry. A perennial growing from slender rootstocks. Heads of *flowers* in loose, irregular corymbs, on peduncles of varying lengths near the ends of branches. 2 to 7 feet high. *Flowers*, 2 to 3 inches across. August to October.

In swamps or wet grounds from Long Island (where it is common), southern New York, to Florida and westward. Near the coast. (See illustration, p. 227.)

### Tall Sunflower. Wild Sunflower

*H. giganteus*.—*Color* of both rays and disk, pale lemon yellow. A tall species reaching 12 feet in height. Usually about 4 feet. Common in leafy and shady, swampy roadsides and thickets from Maine to Florida. *Stem*, rough and of a purplish color. *Leaves*, undivided, lance-shaped, sessile, or a few with short petioles, mostly alternate, numerous, dark green. August to October. (See illustration, p. 229.)



TALL SUNFLOWER (*Helianthus giganteus*)  
(See page 228)

## HARPER'S GUIDE TO WILD FLOWERS

### Rough or Woodland Sunflower

*H. divaricatus*.—Color of both rays and disk, yellow. A lower species, from 2 to 6 feet high, perennial from rootstock. The involucral scales around the flowers are few, narrow, and unusually long. Leaves, opposite, widely spreading, lance-shaped or ovate, tapering to a sharp point, rough above, smooth underneath, toothed. Stem, smooth except near the top, where it is softly downy, slender. July to September.

From northern New York and New England to Florida and Louisiana. In dry woodlands, thickets, and open woods. These are among the flowers that help to round out the beauty of the autumn plant-life with rich, heavy, golden color, making us welcome that last of the flowering seasons as we do the spring. (See illustration, p. 231.)

*H. decapetalus*.—Color of both rays and disk, yellow. Leaves, thin, sharply pointed, toothed, the lower opposite, with petioles; the upper generally alternate, softly downy or rough. Number of rays about 10, with some of the involucral bracts showing between. Blossom, not large. Stem, smooth, branching, 1 to 5 feet high. August and September.

In wet places, as banks of streams, moist copses, damp woods, from Quebec to Florida and westward. Most of the sunflowers are perennials. The tall garden sunflower, *H. annuus*, is an exception, being an annual. It is cultivated from seed, not only for its showy, big flowers, but because its seed is fed to chickens, parrots, and tame squirrels.

*Actinómeris alternifòlia* ("partly rayed").—Family, Composite. Color of rays and disk, yellow, the disk becoming brownish. Rays few, 5 or 6 or more; sometimes none. Leaves, alternate, or the lower opposite, hairy, oblong, or narrow and lance-shaped, deeply toothed, acute at both ends, the lower short-petioled, the upper sessile. A plant 4 to 8 feet high, with a coarse stem, which is hairy, winged above. Flowers, in loose corymbs. August and September.

This plant has been found near Paterson and Montclair, New Jersey. Its range is from western New York southward. In rich soil.

### Bur Marigold. Beggar-ticks

*Bidens frondosa* ("2-toothed," referring to the 2 horns on the achenes).—Family, Composite. Color, greenish or pale yellow,



WOODLAND SUNFLOWER (*Helianthus divaricatus*)

(See page 230)

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taken mostly from the disk, for the rays are seldom found. The involucre is roundish, and the outer bracts become long, much longer than the disk, leaf-like, rough-margined. *Leaves*, petioled, pinnately 3 to 5-divided, with segments thin, stalked, sharply toothed, acute at apex, roughish. 2 to 8 feet high. July to October.

One may make the acquaintance of this plant by its fruit, after a walk in the woods in fall. The seeds are achenes, with barbed awns which point down, catching in the clothing. There is no beauty in the plant, and it is often quite too common, becoming a weed more and more widely disseminated. Some of its common names show the low estimation in which it is held—beggar-lice, pitchforks (a really suitable name), stickseed, or sticktight.

### Spanish Needles

*B. bipinnata*.—*Flowers*, with 3 or 4 or sometimes no yellow rays. Of the involucre, the outer row of scales equals the rays in length. *Achenes*, nearly smooth themselves, are tipped with 3 or 4 awns with hooks bent downward, by means of which they catch into everything which touches them. *Leaves*, 1 to 3-pinnately cut, the divisions cut or lobed, toothed.

Sometimes a weed, in damp soil, Rhode Island westward and southward.

### Swamp Beggar-ticks

*B. connata*.—*Color* of disk, orange yellow. No rays or but few, small. *Leaves*, with margined petioles, lance-shaped, sharply, coarsely, and distantly serrate. *Involucre*, the outer bracts narrow, long, hairy; the inner, oblong or ovate, short. *Stem*, 8 feet high or less, purple in color. *Achenes*, barbed like those of the preceding species.

A coarse plant, absolutely without beauty. In swamps from Nova Scotia south to Georgia, west to Kentucky and Missouri.

### Larger Bur Marigold. Brook Sunflower

*B. laevigata*.—*Color*, bright yellow. *Leaves*, undivided, without petioles, lance-shaped, toothed, opposite. August to October.

This is the finest of the bur marigolds, being really a handsome thing. The *ray flowers* are present, large, 2 inches or more broad. It is especially striking in the later days of September and to the middle of October, outlasting many of the golden-rods. It grows in rich bloom around pools



LARGER BUR MARIGOLD (*Bidens laevis*)  
(See page 232)

## HARPER'S GUIDE TO WILD FLOWERS

in pastures and in swampy land, often quite in water. 2 to 3 feet high. The achenes are just as troublesome as those of other species, being furnished with 2 long and 2 short awns, rigidly barbed. Widely diffused. (See illustration, p. 233.)

### Tall Tickseed Sunflower

*B. trichosperma*.—Color of large rays, golden yellow. Heads in corymbose panicles. Leaves, the lower petioled, deeply, pinnately divided; upper, sessile, 3-lobed or divided. Outer and inner scales of the involucre about the same length, much shorter than the rays. Stem, tall, 2 to 5 feet high, smooth, branched. August to October.

Swamps and wet meadows, sometimes in damp, open woods, Massachusetts to Georgia. A showy species, not very common with us.

### Water Marigold

*B. Béckii*.—Color, yellow. This is an aquatic, with simple or somewhat branched stems, 2 to 8 feet long. Leaves, those under water many, cut into fine, hair-like segments; those above, out of water, a few, sessile, long, narrow, undivided, serrate. August and September.

A large-flowered species, found in slow streams and ponds. The flowers are single, on long or short peduncles. The seeds are smooth nutlets, each with several long awns, spreading apart, barbed at their apex.

### Autumn Sneezeweed. Swamp Sunflower

*Helénium autumnale*.—Family, Composite. Color, yellow in both rays and disk. Number of rays about 10. Flower, not large, but possessing attractiveness. The rays are deeply 3 to 5-notched, and droop downward. Leaves, toothed, oblong to lance-shaped, alternate, sessile, running down on the stem, feather-veined, 2 to 5 inches long. August and September.

Plant erect, 1 to 6 feet high, and in general appearance like a sunflower, but the blossom is smaller, being about  $\frac{1}{2}$  inch across. Branches and broad stem angled and smooth. Heads single or in small clusters. Swamps, river-banks, and wet meadows. Quebec to Florida and westward.

### Common Tansy

*Tanacétum vulgare*.—Family, Composite. Color, yellow. Flowers, all tubular and much compressed into flat-topped corymbs.

## YELLOW GROUP

*Leaves*, much cut into fine-toothed segments or leaflets, on winged petioles which are also cut-toothed.

An herb formerly cultivated for its medicinal qualities. It has escaped from gardens and become a weed in some places. Plant from 3 to 4 feet high, usually lower, with a strong, pungent scent.

### Wormwood

*Artemisia Absinthium*.—Family, Composite. *Color*, yellow. Heads of *flowers* roundish, in panicles. *Leaves*, twice or thrice-divided into narrow lobes, 2 to 5 inches long, long-petioled below, the upper ones sessile or with short petioles. July to September.

A somewhat shrubby plant, escaped from old gardens, where it is still cultivated for its supposed remedial virtues. *Southernwood* is a member of this genus, a favorite plant in gardens on account of its sweet-scented, finely cut leaves, wilting as soon as plucked.

The leaves and flowers of this plant form the principal ingredients of the famous drink absinthe, so much used in France. Mixed with other plants, they are pounded, then macerated with alcohol, allowed to stand for eight days, then distilled.

### Coltsfoot

*Tussilago Farfara*.—Family, Composite. *Color*, yellow. Disk *flowers*, tubular, rays narrow, drooping. *Leaves*, of 2 sorts, the earlier, accompanying the flower, merely scales on the scapes. Later, these are followed by roundish, heart-shaped, lobed, toothed leaves, woolly underneath, smooth and green above. From a perennial rootstock. April to June.

A curious, "thoroughly wild" plant, with many ugly names, as horsehoof, colt-herb, and clay-weed. In wet places, as brooks and springs along roadsides. From Maine and Massachusetts west to Minnesota.

### Common Groundsel

*Senecio vulgaris* ("senex," old man, from the resemblance of the white pappus to gray hair).—Family, Composite. *Color*, yellow. *Leaves*, narrow, pinnatifid, toothed, 2 to 6 inches long, the upper clasping the stem or sessile; lower on short, thick petioles. Several small heads of *flowers* in corymbs, without rays, with only central, tubular, yellow flowers.

Coarse, hairy herbs with hollow stems 6 to 15 inches high, branched. Bracts of the involucre tipped with black.

## HARPER'S GUIDE TO WILD FLOWERS

Common in cultivated or waste ground from Newfoundland to Virginia and westward to Michigan and Minnesota.

### Golden Ragwort

*S. aureus*.—*Color*, yellow. *Leaves* on stem, sessile, clasping, lyre-shaped, lance-shaped, and deeply cut. The root-leaves have long petioles, round or heart-shaped, conspicuously toothed. May and June.

A common plant with perennial root, blossoming earlier than many of the composites. It grows from 1 to 3 feet high, stem smooth. The heads of yellow flowers are small, arranged in leafless clusters. Seeds with fluffy, hoary pappus. In swamps and wet meadows, or along roadsides, also in deep woods it is conspicuously bright, bringing out its golden heads of blossoms very early. When gone to seed it has a cottony look, like that of small thistles.

### Yellow Thistle

*Cirsium spinosissimum*.—*Family*, Composite. *Color*, yellow, sometimes purple. This is a very spiny and prickly species. *Leaves*, stem, and the involucre around the heads of flowers are all alike armed with vicious tiny spears which protect it from cattle and insure its continuation upon lands where it is not especially desired. 1 to 3 feet high. June to August.

Found in all the Atlantic States as far south as Virginia, in sandy soil.

### Nipple-wort

*Lapsana communis*.—*Family*, Composite. *Color*, yellow. *Leaves*, ovate or lyre-shaped, toothed. Heads, 8 to 12-flowered with 8 long bracts making a cylindrical cup. No pappus. A slender, branching plant, with small, loosely panicled heads of flowers. June to September.

Waste places along roadsides from Quebec to Pennsylvania and westward to Michigan. 1 to  $3\frac{1}{2}$  feet high.

### Dwarf Dandelion

*Krigia virginica*.—*Family*, Composite. *Color*, yellow. *Leaves*, mostly from the root, somewhat toothed, the earlier roundish, the later deeply cut and toothed. Flower-stalks at first naked, becoming, later, leafy. Like its larger prototype, the common dandelion, the bright-yellow heads of flowers are followed by hoary bunches of pappus, consisting of both scales and bristles. April to August.

From 1 to 10 inches high, growing in shade, on rocks, in



Goat's Beard. (*Tragopogon pratensis*)



## YELLOW GROUP

hilly or wooded places. Very pretty, and keeping company with small ferns. Maine to Minnesota and southward, in dry soil.

### Cynthia

*K. amplexicaulis*.—*Color*, yellow. *Leaves*, entire, mostly from the root, on winged petioles, toothed, wavy-margined. Stem-leaves clasping, usually but one, above which the stem branches. 1 or 2 feet high. *Flowers*, deep yellow, in rather small heads. May to October.

An annual, common, making patches of bright color in low meadows of New Jersey and wherever it has a foothold. Massachusetts to Georgia and westward to Kentucky. In mountains of Virginia 4,000 feet high.

### Hawkbit. Fall Dandelion

*Leontodon autumnalis* ("a lion and a tooth," from the toothed leaves).—*Family*, Composite. *Color*, yellow. *Flowers*, all with strap-shaped corollas in flat heads, smaller than the common dandelion. They grow singly on scapes, from 3 to 12 inches high, on peduncles which are thickened just under the flower. Occasionally the scape branches, and a second flower appears. Minute scales on the flower scape. *Leaves*, blunt, toothed, or deeply cut, all from the root, clustered. Involucre slightly downy. Pappus a row of tawny bristles. Late May to November.

Fields and roadsides, dry soil. Common, especially northward. Smaller and more delicate than the common dandelion. (See illustration, p. 238.)

### Goat's Beard

*Tragopogon pratensis*.—*Family*, Composite. *Color*, yellow. *Leaves*, clasping at base, tapering to a very long, sharp point, sometimes 10 inches long. *Stem*, 2 or 3 feet high. Peduncles slightly thickened, bearing a broad, flat head of ray and disk flowers, all tubular. Pappus of many long, plume-like bristles.

Fields and waste places from New Jersey northward. Succulent herbs with strong tap-roots, perennials or biennials, the flowers opening in the morning, closing at noon.

### Dandelion

*Taraxacum officinale*.—*Family*, Composite. *Color*, yellow. *Leaves*, clustered at the root, variously cut and coarsely toothed. April to September.

This is one of the weeds that we love for its bright, golden face, and because it is one of our first flowers to awake from



HAWKBIT. FALL DANDELION. (*Leontodon autumnalis*)  
(See page 237)

## YELLOW GROUP

its winter nap and prophesy of coming spring. It is a native of Europe, but has occupied our American soil as far as to the Rocky Mountains. Its young leaves are eaten. In fruit it forms a round head of evanescent seed, a flower bubble, the soft, feathery pappus being raised on a long beak. Many lawns are a mass of golden bloom with the dandelion. It not only comes early, finding warm, sunny corners in April, but it blooms solitary and audacious long after its true season is spent. The time for each blossom is short, the involucre at first closing; later, after the pappus has grown, opening, turning downward, leaving the seed wholly exposed to the breeze.

### Field Sow Thistle

*Sónchus arvén sis*.—Family, Composite. *Color*, yellow. Large heads of bright yellow flowers in flat panicles are borne at the end of leafy stems. *Leaves*, pinnatifid, sharply cut, with the segments turning backward. The name thistle is misleading, for the plant is smooth except the margins of the leaves and bracts of the involucre, which are spiny. July to October.

From a perennial rootstock, in fields and along roadsides, also on gravelly shores, becoming common. From Nova Scotia to New Jersey and westward to the Rocky Mountains.

### Wild Lettuce. Horse-weed

*Lactùca canadénsis*.—Family, Composite. *Color*, pale yellow. *Leaves* long, deeply cut, wavy, some of them pinnatifid, those above clasping the stem, lance-shaped, entire, those below quite long, 6 or 8 inches.

A tall plant, reaching the height of 8 or 9 feet. The cream-colored flowers grow in a long, loose, leafy panicle. Common along roadsides, borders of damp thickets, New England to Georgia westward to Arkansas. Not ungraceful. The stem contains milky juice.

### Orange Hawkweed. Devil's Paint-brush. Grim the Collier

*Hieràcium aurantiacum*.—Family, Composite. *Color*, orange, so deep as to be called orange red. Sometimes the outer rays of the head of flowers are red, those within orange. *Stem*, leafless. *Leaves*, from the root, oblong or spatulate, entire. Whole plant very hairy. Heads of many flowers arranged in corymbs. Rays 5-pointed, truncate at apex. 6 to 20 inches high. June and July.

A pretty flower, common in Massachusetts and elsewhere,

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rather local. Considered a weed in some places. Quebec to Pennsylvania and westward.

### Rattlesnake-weed. Poor Robin's Plantain

*H. venosum*.—Color, yellow. Leaves, clustered at the root, marked above with purple, hairy veins, colored beneath a lighter purple, all entire, without petioles. Late May to September.

A pretty, graceful, slender, not uncommon plant. The strangely marked leaves form a rosette at the root. Slender-pedicelled flowers are produced in long, loose corymbs, on scapes naked or bearing one or two small leaves. 1 to 2 feet high. In open woods and sandy, shady places from Maine to Georgia and westward.

### Panicled Hawkweed

*H. paniculatum*.—Color, yellow. This may be recognized by similar flower-heads to the last, on leafy stems, with leaves green, not marked with purple. Heads small, on very slender pedicels. Late July to September.

A much-branched, somewhat hairy plant rather taller than the last. Flowers smaller. Thin, open woods, dry pastures and fields from Nova Scotia to Georgia and Alabama and westward.

### Canada Hawkweed

*H. canadense* produces larger flowers than either of the last, in corymbs, with leafy, hairy stems, 8 inches to 4 feet high. Leaves, toothed below the middle, acute, the upper rounded or heart-shaped at base, sessile or clasping, those below more oval or lance-shaped. July to September.

Open woods or along wood paths, Newfoundland to New Jersey and westward.

### Rough Hawkweed

*H. scabrum*.—Color, yellow. Leaves, deep green above, paler below, rough-hairy on both sides, elliptical, obtuse. Plant stiff, 1 to 3 feet high. Covered with a whitish wool, and with dark glands on stem and branches. If broken the rough stem will be found very brittle. Flowers in corymbose panicles, on thick pedicels, the heads large. July to September.

Common in pastures and dry fields.

### Hairy Hawkweed

*H. Gronovii*.—Color, yellow. Leaves, hairy, entire or slightly toothed, oblong or broader at apex, clustered at base, scattered



HAIRY HAWKWEED (*Hieracium Gronovii*)  
(See page 240)

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on stem; those below with short petioles, those above sessile, few, and small. Heads of *flowers* small, 15 to 30-flowered, on long, slender stems, which are leafy and hairy, in loose panicles. 1 to 3 feet high. *Pedicels*, glandular. August to October.

A common plant of graceful habit, in sterile soil, along roadsides and in the edges of open woods from Massachusetts to Ontario and westward. (See illustration, p. 241.)

## CHAPTER VI

### PINK, ROSE, CRIMSON, MAGENTA, RED

MANY pink flowers become, in some localities where soil and shade are different, white or nearly white. Others, in the process of their natural growth, fade, becoming white or nearly white, so that the old flowers may seem to vary from those first coming into bloom. Those flowers with distinctly white varieties are referred to in Chapter IV.

Doctor Gray has been called color-blind, because he made little distinction between purple and crimson. There are so few really red (scarlet) flowers, and so many with puzzling shades of crimson, magenta, and rose, and as botanists see colors of flowers differently, it seems best to group all in one chapter. The author will give the colors of those flowers with which she is familiar, as they seem to her, hoping that she represents the average eye for color.

#### Water Plantain

*Alisma Plantago-aquatica*.—Color, white or sometimes a pale pink. (See White Flowers, p. 40.)

#### Sessile-leaved Twisted-stalk

*Stréptopus roseus*.—Family, Lily. Color, a deep rose, almost purple. This plant springs from a short and thick rootstock with fibrous roots. *Perianth*, bell-shaped, with the outer segments often curved backward. *Anthers*, curiously 2-horned. *Style*, 3-cleft. *Flowers*, on slightly bent peduncles, hanging, one from under each leaf, joined to the axil about  $\frac{1}{2}$  inch long. *Leaves*, very acute at apex, sessile, rounded or clasping at base, 2 to  $4\frac{1}{2}$  inches long, parallel-veined, with the stem slightly hairy. *Fruit*, a round, red berry. 12 to 30 inches high. May and June.

These are graceful, pretty plants, with a strong likeness to the uvularias and Solomon's Seal, of which they are near

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relatives. Cold, damp, deep woods from Newfoundland to the mountains of Georgia and westward.

### Wake Robin

*Trillium erectum*.—Family, Lily. *Color*, variable. It is called all shades of purple, crimson, pink, white, or greenish. Perhaps the more common color is deep pink. *Sepals*, 3, narrower than the 3 petals, remaining after the petals have withered. *Anthers* of the 6 *stamens* long, on short filaments. The *pistil* bears 3 stiff, spreading stigmas which are stigmatic on their inner side. The solitary *flower* stands or droops on a peduncle 1 to 4 inches long. *Flower* 2 to 3 inches across. *Leaves*, 3, above on the stem, very broad, 3 to 6 inches long, rhombic in shape, very sharply acute at apex, sessile. April to June.

A showy flower of early spring, but with a disagreeable odor that is more attractive to insects than to ourselves. Rich, moist woods, or more open but shaded and damp fields from Quebec to Pennsylvania, and in the mountains to North Carolina, also westward. (See illustration, p. 245.)

### Painted Trillium

*T. undulatum*.—*Color* of petals white, with red or crimson stripes. (See p. 50.)

### Large-flowered Wake Robin or Trillium

*T. grandiflorum*.—*Color*, white, the petals later turning a rich pink, sometimes marked with green. (See p. 48.)

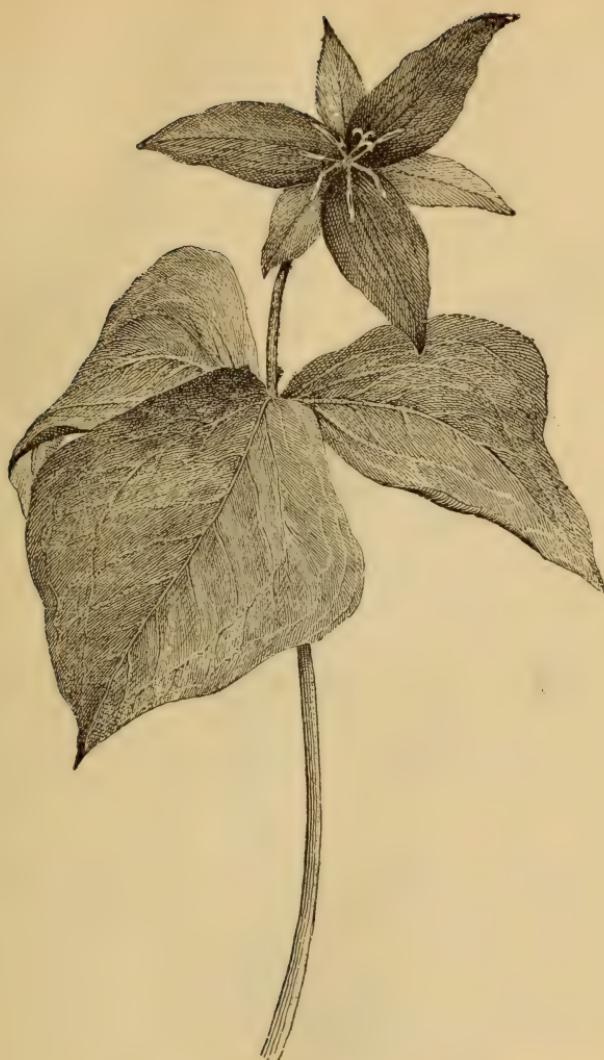
*T. cernuum*.—*Color*, white or pink. (See p. 50.)

### Stemless Lady's Slipper. Moccasin Flower

*Cypripedium acaule*.—Family, Orchis. *Color*, pink, with darker lines, rarely white. The color lies in the large, saccate lip; the 3 narrow sepals and 2 small petals are a greenish purple or brown. They are inconspicuous beside the large pocket which hangs from the upright, leafless scape. *Leaves*, a pair, near the base of the stem, oval, 6 to 8 inches long, 2 or 3 wide, sessile, clasping. *Stem*,  $\frac{1}{2}$  to 1 foot high. A bract is found near the flower. May and June.

Writers differ materially as to the haunts of this flower. One says look for it on an exposed hillside. Another finds it in swamps and still another among dry rocks.

Among my earliest recollections are those of a wonderful grove of tall white pines, where it seemed to me all the



WAKE ROBIN. (*Trillium erectum*)  
(See page 244)

## HARPER'S GUIDE TO WILD FLOWERS

fairy flowers grew. It bordered a lake, and in the early spring the moccasin flower fairly dotted the grove as the feet of the red men with their moccasins may have trodden there years ago. Neither rocks nor a swamp were there, but many inches of soft, dead pine needles, and mossy cushions made the homes of the Lady's Slipper. And since then, I find it everywhere in the pine woods of Long Island. Wherever found it is the very essence of the woods exultant in the new spring, and it should never be torn from its lovely retreat to pine in some parlor vase, or still worse, to decorate a lady's belt. From Newfoundland, south to North Carolina, and westward.

### Showy Orchis

*Orchis spectabilis*.—*Family*, Orchis. *Color*, crimson and white. *Leaves*, 2, large, the largest 4 inches wide, 8 inches long, oblong or ovate, fleshy, shiny above, clammy, with smooth, wavy margins, arising from near the base of the stem. A low orchid, from fibrous roots, bearing a single flower-scape, with 3 or 4 rather large flowers, 1 inch long, at the summit. The *lip* is white, prolonged backward into a blunt spur, not notched or divided. The other *petals* and *sepals* lightly unite, forming a queer, pointed little hood or *galea*, which is dark, rich crimson, with a tinge of purple, in color. *Capsules*, 1 inch long. Height of plant, 6 or 7 inches. April to June.

Rich woods, New England south to Georgia, westward to Nebraska, and in the mountains of Virginia, where it may be found 4,000 feet high. In parts of Pennsylvania this orchis bears the name of preacher-in-the-pulpit. (See illustration, p. 247.)

*O. rotundifolia*.—*Color* of sepals and petals deep pink, except the lip, which is white, spotted with purple. One roundish or oval leaf is borne near the base of the stem, with 1 or 2 sheathing scales below. *Flowers*, several, in a spike, at the end of a stem 8 to 10 inches high, from a creeping rootstock. May and June.

Sometimes found in swamps, more often in damp woods from New England to Georgia, westward to Dakota.

### Small Purple Fringed Orchis

*Habenaria psycodes*.—*Family*, Orchis. *Color*: although this is named a purple fringed orchis, I prefer to call it a deep pink, almost crimson, occasionally white. *Sepals* and *petals* small, the latter



SHOWY ORCHIS (*Orchis spectabilis*)

(See page 246)

## HARPER'S GUIDE TO WILD FLOWERS

toothed, varying in size. The *lip* is fan-shaped, 3-divided, all its parts being deeply fringed. *Spur*, thread-like, thicker above. The delicate *blossoms* are fragrant, arranged in a dense spike, 6 inches or less long, terminating a slender stem 1 to 3 feet high. *Leaves*, the lower, oval or elliptical, quite large, parallel-veined, passing upward into bracts which underlie the flowers in the raceme. July and August.

In wet woods or swamps, where its fleshy, spreading, tuberous roots can find plenty of water. New England to South Carolina and westward. The specific name means a butterfly, referring to the light, poised appearance of the flower of this beautiful orchid.

### Rose Pogonia. Snake's, or Adder's Mouth

*Pogonia ophioglossoides*.—Family, Orchis. *Color*, pale or deep crimson; rarely white. *Sepals* and *petals* nearly equal in size and shape. *Lip*, flat, drawn downward, much crested, yellow-fringed. *Leaves*; 1, rarely 2 or 3, long, near the middle of the stem, with a bract just below the, usually, single flower. June and July.

6 to 9 inches high. Newfoundland to Minnesota, southward to Florida. Fragrant, not unpleasantly so; but Thoreau says of it that it has a "strong, snaky odor." He evidently did not like this orchid, for he says that "it smells exactly like a snake. How singular, that in Nature, too, beauty and offensiveness should be thus combined!" He also says that such flowers as the *pogonia* and *calopogon* "would blush still deeper if they knew what names man had given them." To my mind this is a very pretty bog-orchid.

### Nodding Pogonia

*P. trianthophora*.—*Color*, pink or pale purple. *Flowers*, 1 to 7, on peduncles which spring from the small leaves, at first erect, then drooping. *Lip*, without spur, as in all of the pogonias, 3-lobed, raised on a claw, roughish on the surface. *Leaves*, several, ovate, pointed, alternate, sessile or clasping. July and August.

In this small orchid, 3 to 8 inches high, 3 or 4 upper leaves stand under bright flowers, which hang and nod on long, slender pedicels. Flower  $\frac{1}{2}$  inch long. Rare in New England. Range from Canada to North Carolina, westward to Alabama.



CALOPOGON. GRASS PINK. (*Calopogon pulchellus*)  
(See page 248)

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### Calopogon. Grass Pink

*Calopogon pulchellus*.—Family, Orchis. *Color*, rose and a purplish pink. *Leaf*, 1, long, narrow, grass-like. Among our loveliest bog-orchids is the beautiful calopogon. A scape, bearing a single leaf, issuing from a sheathing base, produces a few rose-colored *flowers*, the lowest in bloom while the upper ones are still in bud. The *lip* appears above in the upper part of the flower, broadened at terminus, and bearded with white, yellow, and crimson hairs. This is the normal position of the lip. In most orchids it is brought under, to form an insect platform, by the twisting of the ovary. In this the ovary does not twist. The outer *sepal*, thus brought below, is large and broad, and forms, quite as well as the lip, a place for the visiting insect to stand upon. Root a bulb. June and July.

This is not a rare plant. Many swamps are crimsoned in spots by this striking and beautiful flower. It is worth one's while to leave the city for a June holiday in order to find the calopogon in one of its wet haunts. In wet meadows and bogs. Newfoundland to Minnesota and southward to Florida and Missouri. (See illustration, p. 249.)

### Arethusa

*Arethusa bulbosa*.—Family, Orchis. *Color*, rose pink. *Leaf*, single, 4 to 6 inches long, narrow, hidden at first, appearing after the flower. *Lip*, pendent, rounded and toothed at apex, fringed, spotted with purple, with 3 white ridges running down its surface. Other *petals* and *sepals*, long, narrow, arching over the petal-like *column*. *Fruit*, a capsule 1 inch long. May and June.

One of our most beautiful orchids, but quite local in its habit. In its favorite swamp it reappears year after year with unerring certainty. The flower is an inch long, subtended by 2 small scales. The lip, broadened and gracefully curved, is fringed with soft, purplish hairs. The root is a bulb. From it arises a scape, 6 to 10 inches tall, at first leafless except for 2 or 3 sheathing bracts at its base. From the upper bract, later, the linear leaf grows. Why this orchid should be dedicated to the nymph Arethusa can hardly be explained. Diana changed the nymph into a fountain in order to save her from the pursuit of a too ardent lover. Does the arethusa bury itself in swamps for self-protection against its fond admirers who love it and pursue it almost to its extinction, when once its retreat is discovered?

## PINK AND RED GROUP

### Beautiful Calypso. Northern Calypso

*Calypso bulbosa*.—Family, Orchis. Color of sepals and 2 petals, crimson or magenta. Lip variegated. (See Chapter of Variegated Flowers, p. 372.)

### Field or Sheep Sorrel

*Rumex Acetosella*.—Family, Buckwheat. Flowers, dioecious (pistils and stamens in different flowers). No corolla. Sepals, green at first, later with the loose achenes, the whole panicle of flowers, including upper stem and leaves, becomes a ruddy color. Leaves, halberd-shaped (eared at base), mostly clustered at root, but some smaller on stem. Upper leaves clasp the stem with thin, silvery, membranous, stipular sheaths.

Low, sour-tasting herbs, growing from somewhat woody, creeping rootstocks, spreading fast in cultivated ground, often becoming a troublesome weed. So common everywhere as to redder the fields where they grow.

### Coast Knotgrass or Seaside Knotweed

*Polygonum maritimum*.—Family, Buckwheat. Color, white or pink. (See White Flowers, p. 58.)

*P. prolificum*.—Color of sepals, green tipped with pink, giving a rosy hue to the flowers. Stem, rigid, much branched, prostrate or ascending, 1 to 4 feet long. Leaves, small, linear to lance-shaped, growing at the joints of the internodes which are short and sheathed with large, silvery *ocreae*. These become frayed and bristly. July to September.

A seashore plant, found from Maine to Florida.

### Persicaria

*P. pennsylvanicum*.—Color, pink. Flowers, in short, thick, obtuse, stiff panicles. Leaves, lance-shaped, very acute at apex, often 8 or 10 inches long, hairy along the midrib. Branches often dotted with little stalked glands. Plant, erect, 1 to 3 feet tall. July to September.

In moist soil from Nova Scotia to Florida, westward to Texas. Found 2,000 feet high in Virginia.

### Water Smartweed

*P. acre*.—Color, white or light pink. (See White Flowers, p. 58.)

## HARPER'S GUIDE TO WILD FLOWERS

### Prince's Feather

*P. orientale*.—*Color*, bright rose. *Leaves*, with petioles, ovate, pointed or oblong, sheathing the stem.

Better known in gardens, from which it has escaped and become wild in some places. It is tall, covered with soft, hairy down. Heavy, dense spikes of *flowers* are borne, drooping and showy. *Sheaths*, hairy, often turned back along the upper edge. 1 to 8 feet high. Originally from India.

### Lady's Thumb

*P. Persicaria*.—*Color*, pinkish. This species, which is a common weed in almost everybody's garden, may be known by the acute, lance-shaped *leaves*, which have a reddish-brown triangular or roundish spot near the middle. *Flowers*, in erect, dense, pendulous spikes. All summer.

Waste places, especially if damp.

### Mild Water Pepper

*P. hydropiperoides*.—*Color*, pale pink or nearly white. Slender, erect spikes of small *flowers*, flesh color, terminate the branches. *Leaves*, narrow, lance-shaped, with soft hairs along the midrib underneath. *Sheaths*, narrow, bristly-fringed, marked with short lines. 1 to 3 feet high. If tasted the juice is acid and pungent. June to September.

In wet places, swamps, and even growing quite in water, over all the country.

*P. arifolium*, described on page 58, may be taken for a pink flower since its calyx is green, edged with pink.

### Buckwheat

*Fagopyrum esculentum*.—Family, Buckwheat. *Color*, greenish, white or rose. This is the cultivated buckwheat famous in New England buckwheat cakes, whose seeds often take root in neighboring fields and copses, the plant reappearing as a weed. *Flowers* in corymbose racemes. Between the stamens there are 8 yellow, honey-bearing glands, making this a favorite flower of the bee tribe. The grain is 3-angled, resembling a beech-nut. Hence the generic name, from *fagus*, a beech.

### Coast Jointweed

*Polygonella articulata*.—Family, Buckwheat. *Color*, light rose, almost white. (See White Flowers, p. 58.)

## PINK AND RED GROUP

### Red Goosefoot. Coast Blite

*Chenopodium rubrum*.—Family, Goosefoot. *Color*, red. *Calyx*, somewhat fleshy, 2 to 4-lobed. *Stamens*, generally 2. *Stigmas*, 2. *Flowers*, small, in leafy, compound, axillary and terminal spikes. The plant gets its color from the calyx, which is red or purplish. *Leaves*, of a triangular outline, coarsely toothed, very acute, thickish, the upper long, narrow, petioled. 1 to 2½ feet high. July to September.

Along the seacoast, in salt marshes, from Newfoundland to New Jersey and westward.

### Saltwort

*Salsola kali*.—Family, Goosefoot. *Color*, a dull or leaden pink imparted to the plant from the wings, which make a circular border along the back of the calyx after it has grown and inclosed the fruit. *Flowers*, sessile, single, in axils of awl-shaped, very pointed, small *leaves* ending in a bristle. Plant rather branched and spreading, 1 to 2 feet high.

One of those plants, homely annuals, which are found everywhere along our seashores.

### Sand Spurrey

*Spergularia rubra*.—Family, Pink. *Color*, dark pink or red. *Sepals* and *petals*, 5. *Stamens*, variable, about 10. *Styles*, mostly 3. *Leaves*, flat, linear, thick. *Stipules*, prominent, sometimes cleft.

A low, smooth plant, 2 to 6 inches high, the stems upright or prostrate. Smaller leaves are clustered in the axils. Sandy soil near the coast, extending inland from Maine to Virginia, westward to Ohio.

*S. marina*.—This is a more strictly marine species, with fleshier leaves and lighter pink *corolla*, found along the entire Atlantic coast and in saline soils inland.

*Lýchnis alba*.—Family, Pink. *Color*, white or pink. (See White Flowers, p. 66.)

### Ragged Robin

*L. Flos-cuculi*.—*Color*, red. *Calyx*, with 5 short teeth. *Petals*, 5, each divided into 4 long, narrow lobes. These linear lobes, erect, wavy, or curled, make the flower "ragged." The color suggests the red breast of the robin, hence the common name.

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*Flowers*, in loose panicles. *Stem*, erect, sticky above. 1 to 2 feet high. *Lower leaves*, 1 to 3 inches long, narrow, petioled; upper, small, bract-like.

Wet soil, in waste places, New Jersey and northward. Sometimes cultivated.

### Red Campion

*L. dioica*. — *Color*, red, rarely white. This is a day species. *Calyx*, at first tubular, becomes swollen and round in fruit. *Petals*, 2-cleft. *Leaves*, below, with long petioles, broad at apex, but pointed, 2 to 3 inches long; those on stem sessile, rather wide, all with the petioles very hairy and sticky. *Flowers*, in panicled cymes, opening in the morning.

Found in cultivated ground or in waste places in New England and the Middle States. Not common enough to be called a weed, yet following the cultivator.

### Corn Cockle

*Agrostemma Githago*. — *Family*, Pink. *Color*, deep crimson, spotted with black. *Calyx* of 5 long, slender, leaf-like divisions, longer than the corolla. *Petals*, 5, broad. *Stamens*, 10. *Pistil*, 1. *Styles*, 5. 1 to 3 feet high. *Leaves*, long and narrow.

In England this attendant upon wheat-fields is considered a nuisance. If its black seeds become mingled with the wheat grains to any extent, they are unwholesome. But the flower, although established here, is not yet common enough to be accounted troublesome. The plant is softly-hairy, rather plebeian-looking, but, on account of its bright color, finds favor.

### Sleepy Catchfly

*Silene antirrhina*. — *Family*, Pink. *Color*, rose. *Calyx*, 5-toothed, veined, becoming swollen with the expanding pod. *Petals*, 5, stalked or clawed, deeply notched, making them inversely heart-shaped, each with a scale-like growth at the base of the blade. *Stamens*, 10. *Styles*, 3. *Flowers*, in panicles, small, opening only for a little time in sunshine. *Stem*, slender, with swollen, sticky, somewhat glutinous joints, 10 to 30 inches high. *Leaves*, opposite, sessile above, long, narrow; those near the root with short petioles, sometimes hairy. June to September.

Dry soil in open woods or waste places, New England to Florida and Mexico. Found over 3,000 feet high in Virginia.



WILD PINK (*Silene pennsylvanica*)

(See page 256)

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### Wild Pink

*S. pennsylvanica*.—*Color*, rose-pink. *Calyx*, long, tubular, viscid, hairy, 5-toothed. *Corolla* of 5 notched or rounded petals standing on *claws*, open and spreading, with a crown at the center where the broad blade is joined to the claw. *Stamens*, 10. *Styles*, 3. *Leaves*, mostly from the root, clustered, smooth, on hairy petioles, narrowly wedge-shaped, long. Often a single pair on stem, narrow, sessile. May and June.

A low, beautiful plant found in many rocky and open woods around New York from Massachusetts southward. It grows in tufts, full of bright color, with soft, velvety buds and large, open flowers. (See illustration, p. 255.)

### Fire Pink. Catchfly

*S. virginica*.—*Color*, deep crimson, nearly scarlet. *Flowers*, borne on slender peduncles, a few in a loose cyme. *Stem*, 1 to 2 feet high. *Petals*, 2-cleft, oblong. *Calyx*, bell-shaped, somewhat swollen in fruit, with thin, dry, membranaceous teeth, viscid. *Leaves*, those above opposite, long, narrow; those at base spatulate, broad at apex, tapering into broad petioles, 3 to 5 feet long. *Flowers*, in loose, cymose panicles. May to September.

Dry, open woods, New Jersey and western New York to Minnesota and southward.

### Bouncing Bet. Soapwort

*Saponaria officinalis*.—*Family*, Pink. *Color*, light rose, or sometimes white when in shaded localities. *Calyx*, 5-toothed. *Petals*, 10. *Stamens*, 10. *Styles*, 2. *Leaves*, lance-shaped, the lower ones broader, more oval than the others, opposite, smooth. *Flowers*, corymbed in clusters, generally double. Joints of stem swollen.

A slovenly flower, still somewhat cultivated, but often running wild. The calyx bursts and the petals seem tumbling out. The plant is from 1 to 2 feet high, and has a generally back-yardish appearance. Along roadsides and in old, abandoned gardens.

### Deptford Pink

*Dianthus Armeria*.—*Family*, Pink. *Color*, pink. *Calyx*, tubular, 5-pointed. *Petals*, 10, pink with white spots. *Stamens*, 10. *Styles*, 2. *Leaves*, long, narrow, hairy. *Flowers*, densely clustered, terminal, on stiff, erect stems 6 to 18 inches high.

Formerly cultivated, and now escaped in many places. I



DEPTFORD PINK (*Dianthus Armeria*)

(See page 256)

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have found it high up on hillsides and in low, dry fields. The garden Sweet William is a near relative of this pink. An English species is the origin of our cultivated carnations and clove pinks. (See illustration, p. 257.)

### Spring Beauty

*Claytonia virginica*.—Family, Purslane. *Color*, pink with deeper veinings, or occasionally white with pink veinings. *Leaves*, long, narrow, grass-like, thick, a pair opposite, on the stem. *Sepals*, 2. *Petals*, 5. *Stamens*, 5, joined to the petals. *Flowers*, few, in a loose raceme, on long, thick, fleshy stems, from a small tuberous root. April and May.

Delicate, star-like blossoms, on fragile stems. When plucked, the petals quickly close and the whole plant droops. It is at best but an evanescent beauty, opening only in sunlight, closing at night. 6 to 12 inches high. The flowers all turn in one direction—as the botanists say, are *secund*. Common in all our woods. (See illustration, p. 259.)

*C. caroliniana* has broader leaves, fewer and smaller blossoms. The two species are not often found together. The closing of the petals at night seems to bring about self-pollination, for the pollen falls upon the petals, and they fold over and drop the grains on the stigma.

There is no prettier sight than a wood whose trees are lightly leaved out in early May, carpeted thickly with the Claytonia's pink stars. Bryant says:

"And the spring beauty boasts no tenderer streak  
Than the soft red on many a youthful cheek."

### Wild Columbine

*Aquilegia canadensis*.—Family, Crowfoot. *Color*, red and yellow. (See Variegated Flowers, p. 372.)

### Pale Corydalis

*Corydalis sempervirens*.—Family, Fumitory. *Color* of petals, a delicate rose, tipped with yellow. *Sepals*, 2, small, like scales. *Corolla* of 4 petals, the upper extending into a short, rounded spur. *Stamens*, 6, in 2 sets of 3 each, the middle stamen of each group bearing a 2-celled, the outside ones a 1-celled, anther. *Pistil*, 1, making a long, slender pod. *Flowers*, about  $\frac{1}{2}$  inch long, in panicled clusters. *Leaves*, delicate, pale green, pinnately cut or divided, the upper almost sessile, the lower with short petioles,



SPRING BEAUTY (*Claytonia virginica*)  
(See page 258)

## HARPER'S GUIDE TO WILD FLOWERS

1 to 4 inches long. *Stem*, erect, leafy, and branching. April to September.

A delicate plant, 2 feet high or less. It grows by preference on moist, shaded rocks. If there be fairies among flowers, this is one. New England to the Rocky Mountains. Found 4,500 feet high in North Carolina.

### Common Fumitory

*Fumaria officinalis* (name means "smoke," from the smoke-like smell of the roots when pulled out of the ground).—*Family*, Fumitory. *Color*, a light pink tipped with dark crimson. Of the 4 *petals* the outer pair is large, erect, joined together, and one of them is spurred. *Pod*, roundish, containing one seed. *Flowers*, quite small, in a long, dense spike, short-peduncled. *Stems*,  $\frac{1}{2}$  to 3 feet long. *Leaves*, finely dissected, petioled. Summer.

Near dwellings and neglected places, sometimes on ballast, in all the Eastern and Gulf States. Not common.

### Cuckoo Flower

*Cardamine pratensis*.—*Family*, Mustard. *Color*, white or pink. (See White Flowers, p. 80.)

### Spider Flower

*Cleome spinosa*.—*Family*, Caper. *Color*, white or pink. (See White Flowers, p. 81.)

### Bowman's Root. Indian Physic

*Gillenia trifoliata*.—*Family*, Rose. *Color*, pale pink or white. (See White Flowers, p. 86.)

### Queen of the Prairie

*Filipendula rubra*.—*Family*, Rose. *Color* of petals, deep pink. *Sepals* and *petals*, generally 5, sometimes 4. *Stamens*, numerous. The fragrant *flowers* are borne, clustered, in a long, compound panicle, on a long peduncle. *Leaves*, pinnate, with a large, terminal leaflet, deeply cut into 7 to 9 lobes, attended by prominent, kidney-shaped stipules. Lateral leaflets sessile. 2 to 8 feet high. June and July.

A stately plant adorning the meadows and prairies south and west of Pennsylvania, sometimes cultivated in the Northeast. Its leaves, when crushed, give forth the odor of sweet birch.

### Hoary Pea. Goat's Rue. Catgut

*Tephrosia virginiana*.—*Family*, Pulse. *Color*, pale lemon or white, marked with deep pink or purple. More fully analyzed,

## PINK AND RED GROUP

of the papilionaceous corolla the standard is a greenish yellow, broad, turned back in the full-blossomed flower, the rose-colored wings cohere with the keel which is a pale yellow tipped and marked with rose. *Leaves*, compound, with 9 to 29 leaflets, one odd, terminating the stem, all tipped with a minute point. June and July.

Sandy soil from New Hampshire to Minnesota and southward, common near the coast. Roots long and slender, with a toughness which gives the name catgut. The plant grows erect, 1 to 2 feet, with thick, brittle stems, in large clumps, in sandy soil, especially edging pine woods. The flowers grow in long panicles, through which are scattered a few leaves. The panicle is often ragged-looking, the blossoms below being withered and dried. The entire plant is white, silky, hairy. The blossoms, with their striking color and large size, make a showy plant.

*T. spicata*.—A straggling, branching species, covered with brownish hairs, with few reddish flowers in a loose, interrupted spike, borne on a long peduncle. *Leaflets* of the pinnate leaves, 9 to 15, broad, oblong or wedge-shaped, generally notched. 2 feet high. May to July.

Dry soil from Delaware and Virginia southward.

*T. hispida*.—*Color*, deep crimson. Slender-stemmed, straggling, 2 feet high or less. 2 to 4 flowers in a spike on a long peduncle. *Leaves*, similar to the last. May to July.

Range the same as the last.

### Coronilla

*Coronilla varia*.—*Family*, Pulse. *Color*, deep rose. *Flowers*, papilionaceous, grouped in umbels from slender peduncles springing out of the leaf-axils. *Pods*, long, 3 to 7-jointed, 4-angled. *Leaves*, compound, 7 to 12 pairs of small, oblong leaflets, with 1 odd, terminal. All summer.

This pretty, hardy plant, escaped from cultivation, borders the roadsides in many places in Connecticut and Long Island to New Jersey. From underground runners ascending stems arise to the height of 2 feet. It is becoming more common every year.

### Herb Robert. Cranesbill

*Geranium Robertianum* (generic name means a "crane," from the long beak on the pod).—*Family*, Geranium. *Color*, deep crimson.

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*Sepals* and *petals*, 5. *Stamens*, 10. *Sepals*, tipped with a short awn, rough, hairy, with the stems often reddish. A strong scent pervades the plant, coming from resinous glands which are scattered in the foliage. *Flowers*, small, single, or 2 or 3 together among the leaves, from forking stems. *Leaves*, 3 to 5-divided, the divisions twice dissected. June to October.

This is one of those plants which, by the sudden, elastic bursting of its pods, scatters its seed a long distance, often several feet. Named after Robert, Duke of Normandy. Damp, shaded woods, Quebec to New Jersey, westward to Minnesota.

### Wild Cranesbill. Wild Geranium

*G. maculatum*.—*Color*, crimson or purplish pink. *Sepals*, 5. *Petals*, 5, on claws *Stamens*, 10, 5 longer than the others, with glands at their base. *Fruit*, of 5 carpels, each tipped with a long, hooked beak. When ripe the valves burst open elastically, setting the seed free. *Flowers*, 1, 2, or 3 together, from rough, hairy stems which grow from perennial rootstocks. The older leaves become whitish. *Leaves*, 4 or 5-parted, the divisions wedge-shaped, cut, or lobed. April to July.

Woods, open and dry, or in fields everywhere. Very common, one of the early, welcome spring flowers. The flower and fruit will bear study.

The favorite garden geraniums (*pelargoniums*), with their various colors and markings, are related to this humble wild flower.

*G. carolinianum*.—*Color*, pale pink. *Sepals* and *petals*, 5, the sepals hairy, pointed, equaling the corolla in length. *Stamens*, 5 or 10, with glands at their base. *Ovary*, 5-lobed, with 5 styles which remain as tips on the long beaks of the fruit. *Flowers*, small, in cymose heads, pedicelled, on a short common peduncle. *Stems*, hairy, much branched, forking above. *Leaves*, palmately 5-parted, the divisions cut into long, narrow lobes. May and June.

In sterile soil or rocky places from Massachusetts southward and westward.

### Fringed Polygala. Flowering Wintergreen

*Polygala pauciflora*.—*Family*, Milkwort. *Color*, crimson. *Sepals*, 5, but 2 of them, the *wings*, are colored like petals. *Petals*, 3, the lowest, the *keel*, larger than the other 2, and beautifully fringed. *Stamens*, 6. *Fruit*, a 1-celled pod, notched at the top. *Flowers*,



FRINGED POLYGALA (*Polygala paucifolia*)  
(See page 262)

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1 to 3, on long peduncles, at the top of the low stem, which is about 4 inches high. *Leaves*, small, mere scales below; larger above, ovate, petioled, many at the summit, sometimes appearing as if whorled just under the flowers. May and June.

A beautiful early flower, its peculiar shape suggesting an orchid. The flowering branches spring from underground stems. These bear, later, small, homely flowers close to the ground, which pollinate themselves in the bud. Open woods. Not uncommon. (See illustration, p. 263.)

### Racemed Milkwort

*P. polgyáma*.—*Color*, deep crimson. *Stamens*, 8. *Wings*, longer than the *keel*. Crest of *corolla* somewhat cut. *Flowers*, showy, in a long, terminal raceme, on short pedicels. When old they curve backward. *Leaves*, small, many on the simple stem, oblong or lance-shaped, smaller below, sessile. *Root-leaves* petioled. Taller than the last, 4 to 9 inches high. *Stems*, clustered from deep and slender roots. Biennial. June and July.

From the root short, underground runners spring, bearing a loose raceme of inconspicuous, self-pollinating flowers. Dry soil from Maine to Florida and westward.

### Field Milkwort

*P. sanguínea*.—*Color*, deep purplish red. *Calyx*, of 3 small, green *sepals* and 2 large, colored *wings*. *Corolla* of 3 *petals*, the *keel* crested. *Stamens*, 6 or 8. *Leaves*, scattered on stem, simple, entire, long, narrow. *Fruit*, a pod, flat and notched at the top. *Flowers*, clustered in a globular head, like clover, which elongates as it grows older. *Stems*, branched and leafy. June to September.

A pretty flower found in various soils, moist and dry, by roadsides, mostly in wet meadows, where it is often so plentiful as to make masses of color. Common, from New England westward and southward.

*P. mariána*.—*Color*, rose purple. A slender, smooth species with *flowers* collected in button-like heads on pedicels. Lower flowers, with their bracts, fall soon, leaving the stem rough. *Leaves*, about  $\frac{1}{2}$  inch long, scattered on the stem, which is 6 to 16 inches high. July to September.

Dry or moist sandy soil, common, from southern New England to Florida and Texas.

*P. Nuttállii*.—*Color*, greenish or dull purple. (See under Purple Flowers, p. 319.)

## PINK AND RED GROUP

### Milk Purslane. Spotted Spurge

*Euphorbia maculata*.—Family, Spurge. Color, red, imparted by the glands of the involucre. (See description of the Spurge Flower, p. 9.) Leaves, small, oblong, narrow, slightly and finely toothed near the apex, about  $\frac{1}{2}$  inch long. They are generally marked with a dark, reddish spot near the middle. Stipules present, narrow, fringed. The flowers grow in heavy clusters on rather long peduncles along the sides of the branches. Stem, prostrate, often dark red, 2 to 15 inches long.

Common in open places, along roadsides, in dry fields.

### Marsh Mallow

*Althaea officinalis* (name means "to cure," in allusion to supposed healing properties).—Family, Mallow. Color, pale rose Sepals, 5, united at base. Outside of these are 6 to 9 long, narrow, green bractlets. Corolla, of 5 petals about 1 inch across. Stamens, many, united at base, making a column or ring around the pistils, the anthers separate above. Styles, projecting beyond the anthers, as many as the divisions of the ovary, stigmatic along their inner sides. Flowers, in axils and terminal, racemose. Leaves, alternate, broad, generally 3-lobed, deeply toothed, ovate or heart-shaped at base, palmately veined, covered with velvety down. Stem, erect, 2 to 4 feet high, bushy, leafy.

Salt marshes on the coast of New England and New York southward. The root, full of mucilage, is used by confectioners for the favorite marsh mallows, also somewhat in medicine.

### High Mallow

*Malva sylvestris*.—Family, Mallow. Color, reddish purple or deep crimson. Calyx, of 5 sepals with an underlying involucre of 3 bractlets. Corolla of 5 large, notched petals, three times the length of the calyx. Stamens and styles much like the last. Fruit, a ring of blunt, roundish, wrinkled, veiny, 1-sided carpels. Flowers, in axillary clusters, on slender pedicels. Leaves, 5 to 7-lobed, sharply toothed, kidney-shaped, square at base. Stem, 2 to 3 feet high. Summer.

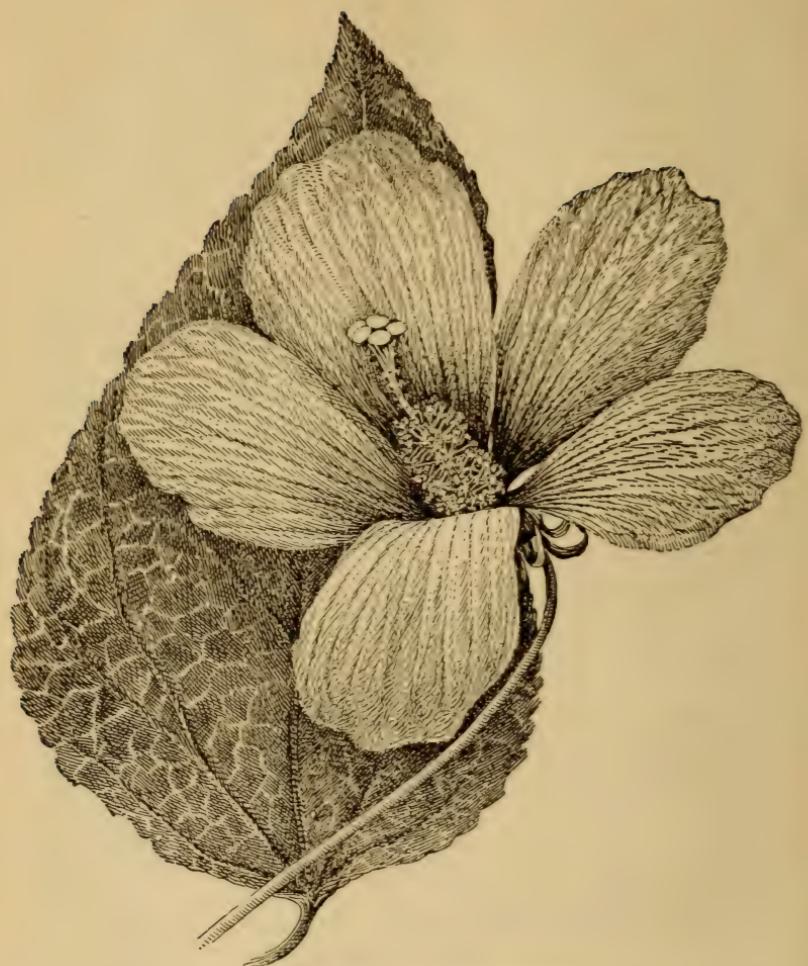
A wayside plant, also found in old gardens, common.

### Musk Mallow

*M. moschata*.—Color, white or pink. (See White Flowers, p. 92.)

### Swamp Rose Mallow

*Hibiscus Moscheutos*.—Family, Mallow. Color, rose, sometimes white. Calyx, 5-divided, surrounded by many narrow bracts.



ROSE MALLOW (*Hibiscus Moscheutos*)

(See page 265)

## PINK AND RED GROUP

*Corolla* of 5 petals, measuring 6 inches across, bell-shaped, withering at the close of one day. *Stamens* and *pistils* in a column like the preceding. In this genus the column is long, with anthers covering most of its length. *Styles* have club-shaped stigmas. *Pod*, 5-celled, many-seeded. *Leaves*, alternate, broad, petioled, much pointed and toothed, the lower 3-divided, smooth above, softly downy beneath, palmately veined. August and September.

Taller than the preceding, 4 to 7 feet high, with flowers far more showy and richer in color. In August the Newark meadows, down the New Jersey coast, and the dunes along the bay fronts of Long Island are glorious with the bloom of this splendid flower. It bears transplanting, and will grow quite well in soil drier than its native marshes. The bushes form dense, hedge-like borders or grow in clumps back from the water's edge. A white blossom with dark-red center is sometimes found. Near the coast from Massachusetts southward. (See illustration, p. 266.)

*H. syriacus* is the althaea of our gardens. It is a tall, tree-like shrub, with pointed and cut leaves. The flower is large, rose-color or white, with brown spots.

*Kostelézkyá virginica*.—Family, Mallow. *Color*, pink. *Flowers*, 2 inches across. The plant is from 2 to 4 feet high, rough hairy. *Leaves*, mostly heart-shaped, the lower 3-lobed. August.

In marshes along the coast, New York and southward.

### Marsh St. John's-wort

*Hypéricum virginicum*.—Family, St. John's-wort. *Color*, pink. *Sepals* and *petals*, 5. *Styles*, 3. *Stamens*, 9, every 3 stamens separated by yellow glands. *Leaves*, opposite, dotted, broad, blunt, not tapering at either end, almost clasping the stem, pale green, entire. *Stems*, simple, profusely branching, about 1 foot high, stolon-bearing. July and August.

The pretty pink flowers, less than half an inch broad, grow often singly or in pairs, or sometimes in clusters in the leaf-axils or terminating the branches. They quickly fade, and deep red pods take their place. Late in the season the stems and leaves turn a dark crimson. Common in the Eastern States. (See illustration, p. 268.)

### Pinweed

*Lèchea marítima*.—Family, Rockrose. *Color*, reddish. *Sepals*, 5, 2 shorter than the others. *Petals*, 3. *Stamens*, many. *Pistil*,



MARSH ST. JOHN'S-WORT (*Hypericum virginicum*)  
(See page 267)

## PINK AND RED GROUP

with 3 stigmas. *Flowers*, dull, insignificant, in a loose, leafy, broadly pyramidal panicle. *Leaves*, opposite, some whorled, long, narrow, the lower ones broader than those above, downy, hoary.

In sand, near the coast, from Maine to Georgia.

### Spiked Loosestrife

*Lythrum Salicaria*.—*Family*, Loosestrife. *Color*, magenta. *Calyx*, a tube with 5 to 7 teeth, and small projections between. *Corolla*, of about 6 long, often twisted petals. *Stamens*, 12, 6 longer, 6 shorter. *Flowers*, large, in a crowded spike. *Leaves*, lance-shaped, heart-shaped at base, often in whorls of threes. *Plant*, tall, 2 to 3 feet high, softly downy.

A beautiful importation from England, found plentifully in swamps in Orange County, New York, and elsewhere. It is remarkable as an example of trimorphism, the two sets of stamens and pistils being of different lengths in the same flower. Every pistil, in order to effect pollination, must receive the pollen from a stamen of the same length in another flower. Professor Darwin experimented with these flowers, and wrote about them to Doctor Gray: "I am almost stark, staring mad over lythrum. If I can prove what I really believe, it is a grand case of trimorphism, with three different pollens and three stigmas. I have fertilized above ninety flowers, trying all the eighteen distinct crosses which are possible within the limits of this one species. For the love of Heaven, have a look at some of your species, and, if you can get me some seed, do." (See illustration, p. 270.)

### Swamp Loosestrife. Water Willow. Willow Herb

*Décodon verticillatus* (name from the Greek, meaning "ten-toothed," alluding to the calyx-teeth).—*Family*, Loosestrife. *Color*, magenta. *Calyx*, bell-shaped, 5 to 7-toothed, with other slender teeth between, one in each sinus. *Stamens*, 10, 5 longer, and 5 shorter, alternate with them. The filaments of the longer stamens are very slender and project from the corolla. Trimorphous. One *pistil*, and the fruit a round capsule, 3 to 5-celled. *Flowers*, in close sessile heads or cymes in the upper leaf-axils, on purplish pedicels. Rather large and showy. Sometimes flowers are double. *Leaves*, opposite or whorled, lance-shaped, 2 to 5 inches long, pointed at both ends. *Stem*, somewhat woody, 3 to 10 feet long, rooting from the tip if it happens to reach the water or mud. July to September.

Swamps, Massachusetts to Florida westward. Found 2,000 feet high in Pennsylvania. Often an aquatic.



SPIKED LOOSESTRIFE (*Lythrum Salicaria*)  
(See page 269)

## PINK AND RED GROUP

### Meadow Beauty. Deergrass

*Rhéxia virginica*.—Family, Melastoma. *Color*, deep rose or magenta. *Calyx-tube* long and narrow, 4-divided, purplish, covered on the outside with glandular-tipped hairs. *Petals*, 4, with the 8 *stamens* joined to the rim of the calyx-tube. *Anthers*, large, prominent, curved, of a bright-yellow color. They open by a small hole at the top for the exit of the pollen grains, and where they are fastened to the filaments they bear a tiny spur. *Style* and *stigma*, 1. *Leaves*, opposite, sessile, lance-shaped, pointed, bristly around the edges, and to a lesser extent upon the surfaces. July to September.

As the petals take slight hold and drop soon after flowering, and almost as soon as plucked, the flower then appears, from its large stamens, to be yellow. The stem is square, with distinct angles. Flowers, single or several, in loose cymose clusters. A pretty species, growing in wet sand or marshy borders of streams, from 4 to 10 inches high. I have seen them in beds showing their pink color in masses for quite a distance. In sandy swamps from Maine to Florida. (See illustration, p. 272.)

*R. marianna*.—This species has paler *petals* and narrower *leaves*. The *stem* is round, very softly hairy. 1 to 2 feet high. *Leaves*, 3-nerved, bristly around the edges, generally sessile. June to September.

In pine barrens of New Jersey, and swamps as far south as Florida and westward.

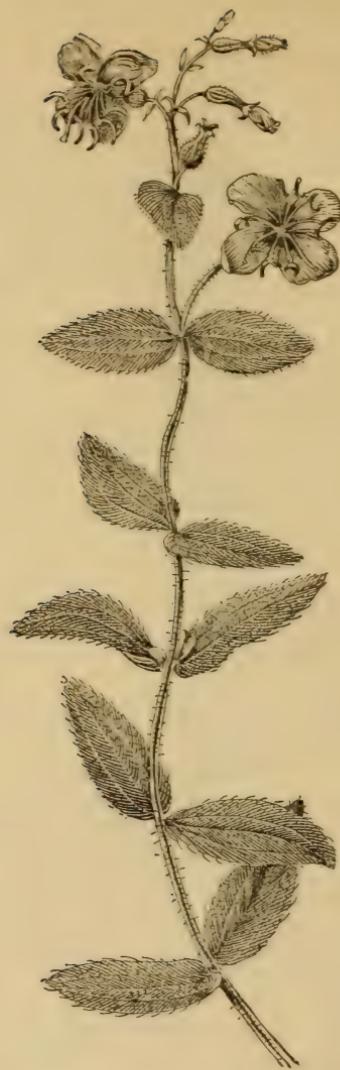
### Water Purslane

*Ludwigia palustris*.—Family, Evening Primrose. *Color* of petals, when present, red or reddish. *Leaves*, small, opposite, petioled, oval or roundish with curving veins. This is at times an aquatic plant; or it is found in swamps, its stems lying on the mud, creeping and rooting. *Petals*, none when in water, small and reddish when out. The lobes of the calyx remain, crowning the *fruit*, which is a 4-sided capsule full of small seeds. *Flowers*, closely sessile, somewhat fleshy, small, without beauty, green, and stiff. *Stems*, smooth, 4 to 15 inches long. July and August.

Common along wet shores or in swamps or moist ditches.

### Great Willow Herb. Fireweed

*Epilobium angustifolium*.—Family, Evening Primrose. *Color*, magenta. *Calyx-tube*, deeply 4-lobed. *Petals*, 4. *Stamens*, 8, maturing before the pistil. *Pistil*, 1, with a 4-lobed, spreading



MEADOW BEAUTY. DEERGRASS. (*Rhexia virginica*)  
(See page 271)

## PINK AND RED GROUP

stigma. *Pod*, long, at length bursting and liberating seeds furnished with downy white tufts. The *flowers* are large, in long racemes, terminating the stem. The lower ones mature seed while the uppermost are still in bud, giving an untidy appearance to the whole spike. *Leaves*, long, narrow, willowy, scattered, pinnately veined. July and August.

A tall, handsome plant, growing in low meadows and in burned-over districts. So the pine woods, which are subject to frequent fires, give rise to this pink flower in great abundance. It illustrates one of nature's devices for covering ugliness with beauty.

### Long-leaved Willow Herb

*E. dénsu*m.—*Color*, pink, or sometimes white (see p. 98). *Calyx-tube*, 5-lobed. *Petals*, 4, notched. *Stamens*, 8. *Stigma*, club-shaped. *Leaves*, narrow, 1 or 2 inches long, opposite or alternate, with smaller ones clustered in the axils, their edges turned back. *Flowers*, in the upper axils, on slender pedicels, small. *Stem*, much branched near the top, whitish with soft down, from a perennial root. July to September.

In swamps or open, low fields north of New Jersey and Delaware. A plant slightly hairy, with pods on long stalks and seeds crowned with fine hairs by which they are blown about.

### Downy or Soft Willow Herb

*E. móllu*.—Somewhat taller than the last, more downy, covered with whitish, incurved hairs. *Leaves*, slightly broader, short-petioled or sessile. *Flowers*, small, in the upper axils. The tufts of hairs belonging to the seeds are very soft and silky. July to September.

In all the plants of this genus, the calyx-tube is much prolonged beyond the ovary, and must not be mistaken for the real flower-stalk. Bogs, Maine to Minnesota, south to Virginia.

### Purple-leaved Willow Herb

*E. colorátu*m.—*Color*, pink, or rarely white. *Flowers*, numerous on the upper branches. *Leaves*, with toothed margins, petioled or sessile, lance-shaped, acute at apex, tapering at base. *Stem* and leaves purplish. *Plant*, covered with whitish hairs in lines or streaks, 1 to 3 feet high. *Seeds* furnished with a tuft of brown hairs. July to September.

Low, moist grounds, Maine to Wisconsin and southward. Found 2,000 feet high in Virginia.

## HARPER'S GUIDE TO WILD FLOWERS

### Gaura

*Gaura biennis*.—*Family*, Evening Primrose. *Color*, white at first, turning pink. *Calyx-tube*, much prolonged beyond the ovary, 4-lobed. *Corolla* of 4 petals, clawed. *Stamens*, 8, drooping, their long filaments with a scale at the base of each. *Stigma*, 4-lobed, surrounded by a curious, raised border, capping a long style which droops also with the stamens. *Flowers*, small, in slender spikes on the ends of the upper branches. *Leaves*, alternate, sessile, oblong to lance-shaped, slightly toothed, 2 to 4 inches long. *Fruit*, rather large, softly hairy, 4-ribbed, acute at each end. July to September.

Dry soil, New England to Minnesota, southward to Georgia and Arkansas.

### Prince's Pine. Pipsissewa

*Chimaphila umbellata* (name from two Greek words signifying "to love winter." One of its popular names is wintergreen).—*Family*, Heath. *Color*, light pink with a purple tinge from the anthers. *Sepals*, 5. *Petals*, 5, round, concave, open. *Stamens*, 10, with hairy filaments, and purple, 2-horned anthers which open by means of chinks. *Pistil*, 1, with a broad, sticky *stigma* 5-divided along the border. *Leaves*, shining, smooth, evergreen, acute at apex, lance-shaped, sharply toothed, whorled or scattered on the stem, from 1 to 2½ inches long. The *branches* are stout, rising from a stem lying on or under the ground, reaching sometimes a foot in height. 2 to 8 *flowers* in umbels, each on slender pedicels. June to August.

A beautiful plant embodying the very essence of the woods. Later in the season, when the blossoms are gone, by pulling up one of the long, just underground stems covered with the leaf branches, we have a pretty bit of festooning for the house. Let only one out of many be taken.

### Spotted Wintergreen

*C. maculata*.—*Color*, pink or almost white. This woodsy plant resembles the last except that its leaves are spotted or striped with white. *Leaves*, widely toothed, the lowest being smaller than the others. *Flowers*, 1 to 3 on long peduncles, their pedicels becoming much elongated in fruit. *Petals*, waxy, with a slight fragrance. 3 to 10 inches high. June and July.

Late in the summer it should become a pleasant pastime with us to seek out and study the fruit of our flowers, especially after the pods have grown to full size. Dry, open



Fireweed Great Willow-herb.  
(*Epilobium angustifolium*)





SPOTTED WINTERGREEN (*Chimaphila maculata*)  
(See page 274)

## HARPER'S GUIDE TO WILD FLOWERS

woods, Maine to Minnesota, southward to Georgia and Mississippi. Found 4,200 feet high in North Carolina. (See illustration, p. 275.)

### One-flowered Pyrola

*Moneses uniflora*.—Family, Heath. Color, white or pink. (See White Flowers, p. 108.)

### Pinesap. False Beech Drops

*Monotropa Hypopitidis*.—Family, Heath. Color, red or somewhat brownish. Flowers, several in 1-sided racemes, the terminal flower with its parts in fives, the others with 3 or 4 sepals and petals. At first nodding, the spike of flowers becomes erect. Stamens, 6 to 10. Ovary, 3 to 5-celled. No leaves, but a succession of colored bracts overlapping one another at the base of the thick stem, which arises from a dense cluster of fleshy, fibrous roots. Stem, 10 to 12 inches high. June to October.

There is a pleasant fragrance about the flowers. The plant is a parasite, as is revealed by the total absence of green chlorophyll grains in any of its parts. In almost any pine or oak woods, open or heavy, looking in the distance like a group of fungi. They have a wide range over the United States from New England to Florida. (See illustration, p. 277.)

### Trailing Arbutus

*Epigaea repens*.—Family, Heath. Color, white or pink. (See White Flowers, p. 110.)

### Cranberry

*Vaccinium Oxycoccus*.—Family, Heath. Color, white, with pink tinge. Leaves, small, scale-like, thin, with turned-back margins. Calyx and corolla, 4-cleft. Stamens, 8. Berry, 4-celled. Flowers, nodding. Fruit, a small acid berry, not so desirable for the table as the larger species. Stems, wiry, trailing, from 6 to 9 inches long.

### Large American Cranberry

*V. macrocarpon* is the one cultivated in large sections of bog land, and prized as an accompaniment to the Thanksgiving turkey. The stems grow prostrate, often 4 to 5 feet in length. Flowers are large, with corolla turned back.

The name cranberry is said to be a shortening of craneberry, referring to the curve of the branches, which are conceived to be like the crooked neck of a crane. A cranberry-bog is flooded with water in the fall and early spring. In



PINESAP. FALSE BEECH DROPS. (*Monotropa Hypopitidis*)  
(See page 276)

## HARPER'S GUIDE TO WILD FLOWERS

May the water is drained off. The picking commences in September, before heavy frost, and men, women, and children are employed, and paid by the crate or bushel. Buildings are erected near the bogs, in which the fruit is separated from leaves and twigs. The geographical range of the cranberry is very wide, from north latitude  $38^{\circ}$  to  $60^{\circ}$ , and covering all North America east of the Mississippi. (See illustration, p. 279.)

### Flowering Moss. Pyxie

*Pyxidanthera barbulata*.—Family, Diapensia. Color, white or pink. (See White Flowers, p. 114.)

### Common Pimpernel

*Anagallis arvensis*.—Family, Primrose. Color, called scarlet; rarely white. Calyx and corolla, regularly 5-parted. Stamens, 5, their filaments purple-bearded. Pistil, 1. Flowers, small, wheel-shaped, on long peduncles, single, in the upper axils. Stems, low, spreading. Annuals. Leaves, opposite or whorled, sessile, ovate, entire. May to August.

The petals close upon the approach of a shower, from which one of its popular names, poor man's weatherglass, is derived. They also close at night, and soon after being plucked. I know of no other flower tinged with just this shade of red. It is often called scarlet pimpernel, but to me it is terra-cotta. It is a dear little plant, often dotting the ground with color. I have picked it in sprays 20 inches long. A variety, *caerulea*, has blue petals. Open woods or low cultivated grounds. (See illustration, p. 281.)

### Sea Milkwort

*Glaux maritima*.—Family, Primrose. Color, pink or white. Calyx, tubular, 5-cleft, bell-shaped, giving the color to the flower. Petals, none. Stamens, 5, connected with the base of the calyx, alternate with the lobes. Leaves, fleshy, entire, sessile, opposite, linear, obtuse. Low, fleshy plants, much branched, the branches weak, drooping or prostrate, 2 to 8 inches high. Flowers, small, in the axils. June to August.

Sea-beaches, New Jersey northward, also in subsaline soil from Minnesota westward. More common on the Pacific than the Atlantic coast.

### Shooting Star. American Cowslip

*Dodecatheon Meadia*.—Family, Primrose. Color, deep pink, rarely white. Calyx and corolla, 5-cleft, the divisions of the corolla



AMERICAN CRANBERRY (*Vaccinium macrocarpon*)  
(See page 276)

## HARPER'S GUIDE TO WILD FLOWERS

being long and narrow. *Stamens*, generally 5, their anthers coming together and forming a cone. *Leaves*, in a cluster at the root, oblong or broader at apex than base. *Flowers*, in an umbel at the top of a naked scape, nodding on slender pedicels, surrounded by an involucre of small bracts. May and June.

Name means the "twelve gods," under whose care primroses were thought to be. This is a showy plant, found in deep, cool, moist woods, and in prairies from Pennsylvania westward and southward.

### Sea Pink

*Sabatia stellaris*.—*Family*, Gentian. *Color*, pink, occasionally white. *Calyx*, 5-parted, its lobes linear, awl-shaped, not as long as the corolla. *Corolla*, 5-parted, wheel-shaped. *Stamens*, 5. *Leaves*, opposite, entire, narrow, long, the lower broader than those above. 6 to 24, but usually not over 8, inches high. July to September.

An exquisite flower found in salt marshes. A large, open corolla with a yellow center, looks you squarely in the face. Where not plucked to extermination these sea pinks grow generously in their habitats, forming masses of pink color.

*S. gracilis* is scarcely to be distinguished from the last, except that the *calyx-lobes* are equal to the lobes of the corolla in length. Both *leaves* and *stem* are more slender, the lowest leaves being linear, those on the branches nearly filiform. May to August.

In salt or brackish marshes, Nantucket to Florida, westward to Louisiana. (See illustration, p. 283.)

### Large Marsh Pink

*S. dodecandra*.—*Color*, deep rose pink, rarely white. *Corolla*, tubular, the border 8 to 12-parted, *calyx-lobes* narrow, about half the length of the corolla. The blossoms are 2 inches across, of a soft, rosy pink color. I have found them plentifully in southern New Jersey. *Leaves*, spatulate—that is, broader at apex—tapering below to a petiole, opposite, growing narrower above until they become narrowly linear. *Stem*, 1 to 2 feet high. *Flowers*, single, on peduncles, loosely panicled. July to September.

The largest of our *Sabatias*. Borders of brackish ponds and in salt marshes from Massachusetts to Florida and Alabama.

### Centaury

*Centaúrium pulchellum*.—*Family*, Gentian. *Color*, crimson. *Calyx*, tubular, deeply 4 to 5-parted into slender lobes. *Corolla*,



PIMPERNEL (*Anagallis arvensis*)

(See page 278)

## HARPER'S GUIDE TO WILD FLOWERS

slenderly tubular, with a 4 to 5-parted border, the lobes not more than one-third the length of the tube. *Stamens*, of the same number as the corolla-lobes, their anthers spirally twisted. *Style*, slender. *Stigma*, thickened, club-shaped. *Flowers*, more in spreading cymes than panicles, all with short pedicels. *Leaves*, on the stem, opposite, small, oval, ovate, or oblong. Summer.

Less than 8 inches in height, these plants are yet worth a trip into the low, wet, or dry meadows to find. New York to Illinois and southward.

### Bitter Herb. Earth Gall

*C. umbellatum*.—*Flowers*, cymose, much like the last in shape and size. *Color*, deep crimson with a purplish tinge, all nearly sessile. *Leaves*, linear at the top of the stem, broader below, and clustered in rosettes at the root. The *stem* branches cymosely, forking several times, bearing the flowers on the ends of the branches. 6 to 15 inches high. June to September.

Waste places in the more northern States.

### Spiked Centaury

*C. spicatum*.—*Color*, pink, paler than the last, sometimes shading to white. *Flowers*, small, in spikes, on one side of the branch. Tube of *corolla* but little longer than that of the calyx. *stem*, erect, much branched, 6 to 18 inches high. *Leaves*, oblong, narrow, clasping or sessile. May to September.

Nantucket, in sand along the coast, also in Massachusetts and Portsmouth, Virginia.

### Swamp Milkweed

*Asclepias incarnata*.—*Family*, Milkweed. (For description of this Family, see p. 10.) *Color*, crimson. The color is found in the reflexed lobes of the *corolla* and the "hoods," which stand up around the *stamens* and *stigma*. In the swamp milkweed the reflexed lobes are a purplish deep pink or red; the hoods are a lighter pink. The different species may be largely determined by their leaves and localities. *Leaves* of this plant, opposite, long, narrow, pointed at apex, petioled, slightly heart-shaped at base. *stem*, smooth, not milky, very leafy, slender, branched above, 2 to 4 feet high. *Fruit*, a long, thick follicle, which, when it splits open, liberates a mass of flat seeds bearing long tufts of silky hairs at their place of attachment to the pod. July to September.

Swamps and wet places along roadsides from New England westward to Kansas, southward to Louisiana. Found 3,000 feet high in West Virginia.



SEA PINK (*Sabatia gracilis*)  
(See page 280)

## HARPER'S GUIDE TO WILD FLOWERS

### Red Milkweed

*A. rubra*.—*Color* of corolla-lobes, purplish red; of hoods, orange red. *Flowers*, many, in umbels. *Leaves*, lance-shaped, taper-pointed at apex, round or indented at base, 3 to 8 inches long. *Stem*, smooth, 1 to 4 feet high. July.

Moist grounds, as wet pine barrens, New Jersey and Pennsylvania to Florida, Louisiana, and Missouri.

### Common Milkweed. Silkweed

*A. syriaca*.—*Color*, a dull greenish or purplish crimson, often paler. This is one of those colors bordering both on crimson and purple, difficult to describe. *Leaves* are unmistakable, being broad, oval, smooth along their edges, softly downy beneath, acute at apex, obtuse at base, with short petioles, 4 to 9 inches long. *Stem*, 3 to 5 feet high, with much milky juice. *Follicles*, 4 or 5 inches long, covered with soft prickles. June to August.

In rich, good soil, but found in some waste places and fields in all the States east of Kansas.

### Four-leaved Milkweed

*A. quadrifolia*.—The stem is naked below except for a pair of small leaves, but bears, about the middle, leaves 2 to 4 inches long in 1 or 2 sets of fours; also, above, 1 or 2 pairs; all ovate or lance-shaped, thin, tapering, somewhat downy underneath, short-petioled. *Stem*, 3 to 5 feet high, stout, generally unbranched. The blossoms are a pale rose *color*, fading to almost white. May to July.

Dry woods and rocky hills from New Hampshire to Minnesota, southward to North Carolina and Arkansas.

### Few-flowered Milkweed

*A. lanceolata*.—*Color* of corolla segments, bright red; of hoods, orange. *Flowers*, in umbels, 5 to 12 together. *Leaves*, long and narrow, willow-shape, gradually tapering to the apex, 4 to 10 inches long, on short petioles. *Stem*, smooth, almost leafless above, 2 to 4 feet high. June to August.

In swamps and wet pine barrens near the coast, New Jersey to Florida and Texas.

### Wild Sweet William

*Phlox maculata*.—*Family*, Polemonium. *Color*, crimson. *Calyx*, tubular, 5-ribbed and 5-cleft into long, narrow, ribbon-like segments. *Corolla*, a slender tube, with a wheel-shaped, 5-lobed, open, spreading border. *Stamens*, 5, short, inserted on the tube

## PINK AND RED GROUP

of the corolla. *Style*, 3-lobed. *Capsule*, 3-celled. *Flowers*, in separate, few-flowered cymes, several on the stem, making a long panicle, leafy below, and with 1 or 2 leaves under each small cyme. 18 inches to 3 feet high. *Stem*, often purple-spotted. June to August.

In rich woods, beside streams, Connecticut to Florida, westward to Minnesota and Tennessee.

### Moss or Ground Pink

*P. subulata*.—*Color*, pink, sometimes white. The tubular *corolla* has a darker center. *Leaves*, very narrow, thin, fascicled, smaller ones clustered in the axils, irregularly arranged on the short branches which are 2 to 6 inches long. Low plants growing in tufts and mats, clinging to the ground. April to June.

This is often cultivated, and formerly was a favorite flower for massing in beds. It has a wild range from southern New York to Florida, climbing up rocky hillsides or covering rocks and sandy banks. (See illustration, p. 286.)

### Creeping Phlox

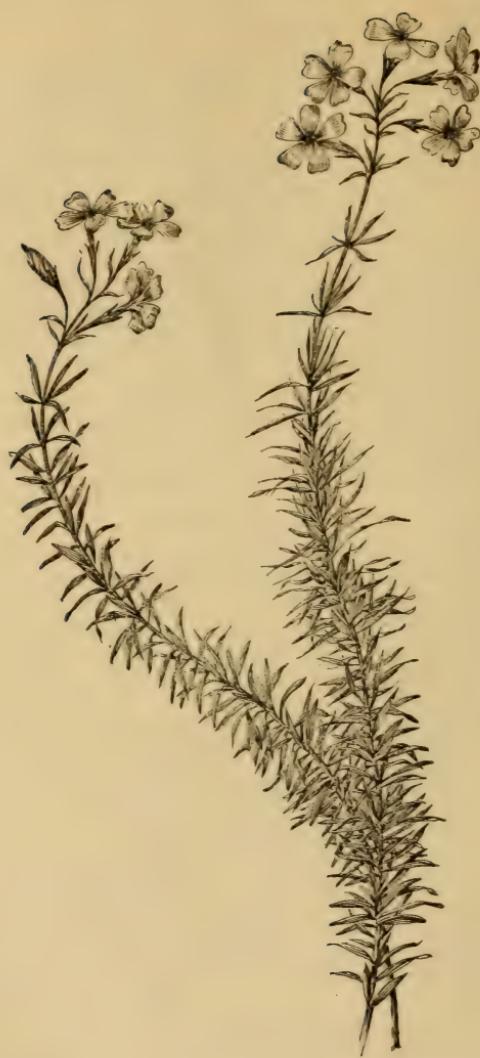
*P. stolonifera*.—*Color* of corolla-lobes, purplish red or crimson. Tube of *corolla* longer than in the preceding, and *flowers* larger, in simple cymes on hairy pedicels. *Calyx-tube* also hairy, with linear teeth, the tube about the same length as the teeth. *Leaves*, opposite, sessile, ovate, blunt at apex, on the flowering stems. Besides the flowering stems, which stand erect, 4 to 8 inches high, there are sterile shoots, or runners, which creep along the ground bearing smooth, thick, evergreen, inversely ovate leaves, narrowed below into short petioles. May and June.

In damp woods, Pennsylvania to Georgia and westward. Found 4,500 feet high in Virginia.

### Downy Phlox

*P. pilosa*.—*Color*, pink, with a purplish tinge, darker in the center. *Calyx* and *corolla*, tubular. *Calyx-teeth* awl-pointed, a little longer than the tube. Corolla-lobes inversely ovate, not divided. *Stamens*, joined to the tube of the corolla, not projecting. *Flowers*, clustered at the ends of simple stems, in cymes or short panicles. *Leaves*, opposite, sessile, roughish, the lower near together, lance-shaped, heart-shaped at base, the upper ones far apart, all tapering to a point. April to June.

A lovely flower, growing in rather open and dry woods from Connecticut and New Jersey south to Florida and westward.



MOSS OR GROUND PINK (*Phlox subulata*)  
(See page 285)

## PINK AND RED GROUP

### American Germander. Wood Sage

*Teucrium canadense*.—Family, Mint. *Color*, pink, crimson, or sometimes cream color. *Calyx* and *corolla*, 2-lipped. The corolla seems to have no upper lip. It has 4 upper, nearly equal, small lobes like little ears or horns, while below a broad, concave *lip* projects. *Stamens*, 4, 2 being taller than the others. *Pistil*, 1. *Fruit*, 4 nutlets, from the center of which the style stands. The *flowers*, about 6 in a whorl, grow in terminal spikes, greenish buds above, pink flowers lower down, while often, lowest of all, scarious, withered corollas detract from the delicate beauty of the 6 to 12-inch-long spike. *Leaves*, serrate, lance-shape to ovate, sharply pointed at apex, short-petioled or sessile, opposite. Bracts accompany the flowers in the spike. 2 to 3 feet high. Plant covered with soft down. *Stem*, square. July to September.

Rich, low ground and wet meadows. New England to Nebraska and southward. I have found this pretty mint common on the shores of Greenwood Lake, New Jersey, and on the south shore, along the bay fronts, of Long Island. A var. *littorale*, with smaller flowers, stiff stem, lance-shaped leaves, whole plant very softly-downy, occurs near the coast from Maine to Florida. (See illustration, p. 288.)

### False Dragon Head

*Physostegia virginiana*.—Family, Mint. *Color*, light pink, touched with crimson. *Calyx*, bell-shape, deeply 5-toothed. *Corolla*, tubular, with inflated throat, 2-lipped, the upper lip entire, the lower 3-parted, its middle lobe broad and notched, 1 inch long. *Leaves*, thick, serrate, lance-shape, sessile, opposite, tapering at both ends. *Stems*, smooth, slender, wand-like, square. June to September.

Tall plants, 1 to 5 feet in height, with showy spikes of pink flowers, crowded, almost overlapping one another. Often cultivated. Wet soil, Quebec, south to Florida, Louisiana, and westward.

### Red Hemp Nettle. Ironwort

*Galeopsis Ladanum*.—Family, Mint. *Color*, pink or rose, sometimes spotted with yellow. *Corolla*, of the labiate type, the upper lip arched, the lower 3-cleft, the 2 lateral lobes small, oval, the middle one notched. *Stem*, long, 6 to 18 inches high, leafy, whitish with small hairs. *Leaves*, 1 to 2 inches long, linear, acute at both ends, serrate, petioled. *Flower-clusters* axillary, on long peduncles. June to September.

Waste places and fields, rather common from New Jersey



AMERICAN GERMANDER. WOOD SAGE. (*Teucrium canadense*)  
(See page 287)

## PINK AND RED GROUP

westward and southward. On Long Island I happen to have found it only in Bridgehampton.

### Oswego Tea. Bee Balm

*Monárda dídyma*.—Family, Mint. Color, bright red. The bracts near the flowers are also a bright red, adding to the brilliant scarlet of the blossom. *Calyx*, narrowly tubular, with 5 bristly-pointed teeth, hairy in the throat. *Corolla*, 2-lipped, the upper arched, the lower 3-divided into unequal lobes. *Flowers*, thickly massed in solitary clusters, terminating a simple, straight stem, 2 to 3 feet high. *Leaves*, thin, petioled, 3 to 6 inches long, opposite, sharply pointed at apex, rounded at base, serrate. July to September.

Plant with strong mint odor, showy, not uncommon, growing in damp woods along banks of streams from New England to Michigan, south to Georgia. Found 5,200 feet high in North Carolina.

### Field Mint

*Méntha arvén sis*.—Family, Mint. Color, pink or white. (See White Flowers, p. 123.)

### Purple Gerardia

*Gerárdia purpùrea*.—Family, Figwort. Color, rose purple or a purplish pink. (Most botanists call it purple, but to me it is more on the crimson tint.) *Leaves*, opposite, linear, pointed at apex, rough on margins. Late summer, August to October.

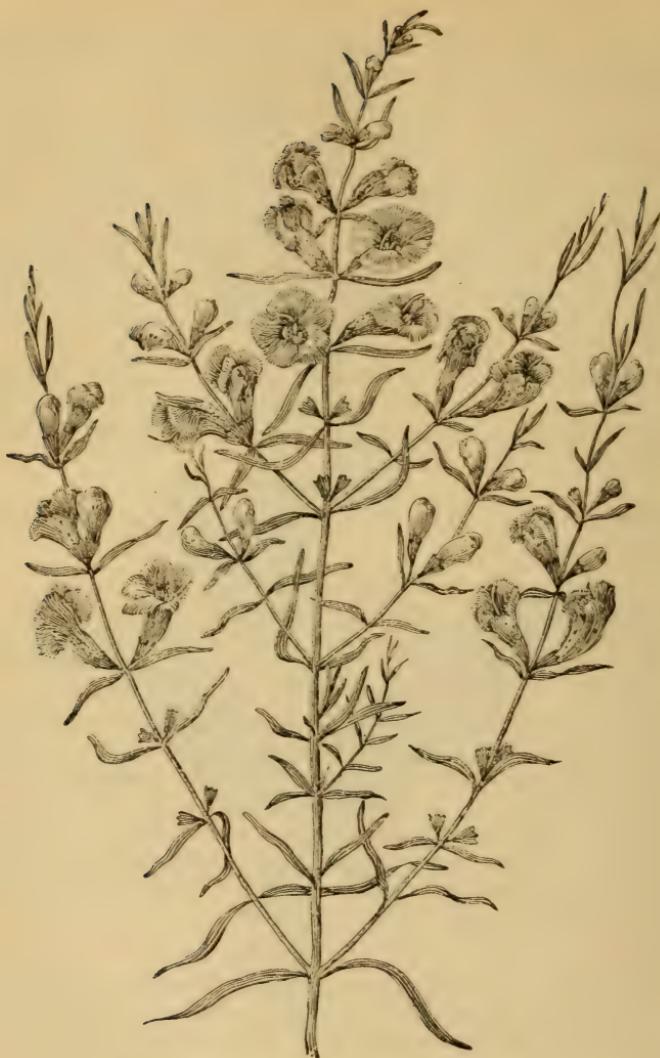
Forsaking the regular 2-lipped type of the Figwort Family, the gerardia blossoms are bell-shape, with irregular, spreading, round-lobed borders. The short calyx-teeth are sharp-pointed. Flowers, 1 inch across, showy, growing on divergent branches. Supposed to be root-parasitic. I have seen the purple gerardia in spreading masses covering sandy ground with mats several feet in width. Near the coast from Massachusetts to Florida and Texas.

### Seaside Gerardia

*G. marítima*.—Color, bright rose. Much like the purple gerardia, but with calyx-leaves and stem somewhat fleshy. *Stem*, 6 to 12 inches high. In salt marshes near the seashore, from Maine to Florida. July to August.

### Slender Gerardia

*G. tenuifòlia*.—Color, rose pink. *Corolla*,  $\frac{1}{2}$  inch long, as described in *G. purpurea*. *Leaves*, very narrow, linear, acute,



SLENDER GERARDIA (*Gerardia tenuifolia*)  
(See page 289)

## PINK AND RED GROUP

sessile, scattered on the stem.  $\frac{1}{2}$  to 2 feet long. August to October.

These pretty flowers color the fields of New Jersey, Long Island, and all the Eastern States westward as far as Illinois with bright crimson interspersed with slender, grass-like leaves. They can be seen in their season from the railway cars in great profusion. The flowers appear on long, slender, dark-colored stems. The corolla is often spotted. The root is probably parasitic, as the plant turns black in drying. (See illustration, p. 290.)

*G. parvifolia*.—Color, bright pink. *Corolla-lobes*, spreading. *Stem*, slender, 6 to 18 inches high. *Leaves*, linear, awl-shape, very small above, scattered. A small, slender species with bright flowers. August to October.

Sandy soil, near the coast, Massachusetts to Florida and Louisiana.

### Mudwort

*Limosella aquatica*, var. *tenuifolia*.—Family, Figwort. Color, white or pink. (See White Flowers, p. 125.)

### Scarlet Painted Cup. Indian Paint Brush

*Castilleja coccinea*.—Family, Figwort. Color of inconspicuous flowers, scarcely seen, yellow; of the conspicuous floral leaves, red. *Leaves*, the lower, deeply, irregularly cut into narrow divisions; upper and floral, less deeply; root-leaves nearly entire, clustered. This flower is neither scarlet nor a cup. Pulling aside the brilliant leaves, we find hidden among them a small, yellow blossom, with a *calyx* of 2 divisions, each 3-cleft; a *corolla*, tubular, 2-lipped, the upper lip long and narrow inclosing 4 *stamens*; the lower lip 3-lobed, short. *Flowers*, in a short spike. Summer.

Often the moist, sandy fields are reddened in large patches with this singular plant, which dyes its floral leaves a color to rival the cardinal-flower in intensity. Stem, hairy, 1 foot high. Massachusetts to Virginia, southward to Texas.

### Lopseed

*Phryma Leptostachya*.—Family, Lopseed. Color, deep rose. *Leaves*, 3 to 5 inches long, thin, ovate, pointed, coarsely toothed, the lower on long petioles. A plant 1 to 3 feet high, with 2-lipped calyx and corolla. There are 3 bristly teeth on the upper lobe of the *calyx*, hooked at the tip. The *corolla* has 3 large lobes on its lower lip. *Fruit*, a single seed, around which the calyx infolds itself. Small *flowers*, in pairs, are arranged in long spikes

## HARPER'S GUIDE TO WILD FLOWERS

terminating the numerous branches. The calyx turns downward after flowering and hugs the stem. July and August.

Moist, open, but shaded woods, Canada and Minnesota south to Florida and Kansas.

### Cardinal-flower

*Lobélia cardinalis*.—*Family*, Lobelia. *Color*, deep, velvety red. One of our few flowers really scarlet. *Flowers*, in a raceme. The *calyx* is divided into 5 long, narrow points united below. The *corolla*, a long and narrow tube, breaks above and spreads into 5 divisions. Three of these are more united and stand apart from the other two, which, one on each side, are quite narrow. Through a split down the entire length of the corolla the *stamens* stand, tall and stiff, their red filaments and blue-gray anthers united into a tube. The *anthers* are slightly fringed with white. Overtopping all, peeping through the stamens' tube, and hanging down, is the red double *stigma*, tipping a long style. There is a touch of brown on the base of the middle petal-lobes, otherwise the color of the flower is an intense, vivid scarlet. Scarcely is such a rich color to be found in any other flower. *Leaves*, alternate, 2 or 3 inches long, ovate to lance-shape, toothed; among the flowers, bract-like. August and September.

This queenly flower is fortunately quite common. It loves the shady banks of rivers, crouching under bridges. Or it comes out boldly and rears its splendid spikes on broad and sunny banks, where the cows come to drink, among bur-reeds, sagittarias, tall rushes, and brookweeds. It cannot hide, if it would, any more than the scarlet tanager can conceal itself in the trees. It is a flower clothed with stateliness as well as beauty, and if quickly placed in water will keep fresh for many days. New England southward.

It is pleasant to think that this is one of our own plants, it being strictly indigenous to America. (See illustration, p. 293.)

### Twin-flower

*Linnaea borealis* (named from the great botanist Linnæus).—*Family*, Honeysuckle. *Color*, rose, or *corolla* whitish, with rose purple stripes, hairy inside. *Leaves*, opposite, roundish, sparingly crenate, on short petioles, evergreen, shiny above. *Calyx*, 5-toothed. *Corolla*, bell-shaped, 5-lobed. *Stamens*, 4, two longer than the other two. *Fruit*, a dry, 3-celled pod, with only 1 perfect seed. *Flowers*, hairy within, delicately fragrant, in pairs, each hanging from its own tiny stalk, the 2 pedicels united below



CARDINAL-FLOWER (*Lobelia cardinalis*)  
(See page 292)

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into a slender peduncle, which grows upright from the trailing and creeping stems. June.

As dainty a floral beauty, loving a mossy nest, as the cool woods afford. Doctor Gray says that this plant was an especial favorite with "the immortal Linnæus," and that "there is extant at least one contemporary portrait of Linnæus in which he wears the tiny flowers in his button-hole."

### Joe Pye Weed. Trumpet Weed

*Eupatorium purpureum*.—Family, Composite. Color, pale magenta pink, tending to whitish. The flower bracts are purplish. Corollas, tubular, 5-toothed. Pappus, a row of hair-like bristles. Flowers, in dense, compound, flat-topped or pyramidal panicles with a straight, often purplish stem, marked with lines. Plant, 3 to 10 feet high. Leaves, in whorls of 3 to 6, thin, serrate, ovate or lanceolate, 4 to 12 inches long, about 3 inches wide. When in fruit the blooms become "fuzzy." August and September.

Not a handsome plant, but tall and showy, one of the autumn coarser flowers, found in lowlands or in moist woods or thickets. Named from a New England Indian doctor. New England to Florida. There are several varieties of this, differing mainly in the leaves. (See illustration, p. 295.)

Var. *maculatum*, called spotted boneset, has purple-spotted stems of lower growth than the last. Leaves, smaller, more finely toothed, 3 to 5 in a whorl, the upper, perhaps, opposite, thicker and rougher. Cyme of flowers flatter, and the flowers of a deeper crimson. Growing also in wet grounds with nearly the same range.

### Vanilla Plant

*Trilisa odoratissima*.—Family, Composite. Color, deep crimson or purplish. Heads without rays, small, in flattish panicles. Leaves, large, entire, light green, those below oblong or spatulate, 4 to 10 inches long; the upper smaller, bract-like. Smooth stem. Autumn.

Pine barrens of New Jersey and southward. The odor of vanilla is given out by the crushed leaves.

### Fleabane

*Erigeron philadelphicus*.—Family, Composite. Color of the numerous, narrow rays crimson with a purplish tinge, while the center of the flower is yellow. Flowers, small, growing in corymbed



JOE PYE WEED. TRUMPET WEED. (*Eupatorium purpureum*)  
(See page 294)

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clusters. *Stem*, coarse, hairy, leafy to the top, 1 to 3 feet high. *Leaves*, thin, oblong, the upper clasping the stem with heart-shaped bases, entire; the lower toothed, narrowed downward. *Midrib* prominent. May to August.

Wet meadows along banks of rivers in the Eastern and Southern States. Flower much like the commoner Robin's Plantain, but having more rays, long and narrow.

### Salt Marsh Fleabane

*Pluchea camphorata*.—Family, Composite. *Color*, pink. *Flowers*, all tubular, many in a head, a few in the center without pistils and with a 5-cleft corolla; the others pistillate, with a thread-like corolla. No rays. *Leaves*, sessile, or with short petioles, toothed, oblong, narrow, thick, rough. 2 to 3 feet high. August.

A common, rather pretty flower found in brackish or salt marshes along the coast. The small, rose-colored blossoms grow in close, flat heads resembling the inflorescence of the everlasting. Stem and leaves glandular. They give forth a distinct odor of camphor. Massachusetts southward. (See illustration, p. 297.)

### Coreopsis. Tickseed

*Coreopsis rosea*.—Family, Composite. *Color* of rays, rose; of disk, yellow. *Rays*, 3-toothed. *Heads*, on short peduncles in corymbose clusters. *Leaves*, long, narrow, entire, opposite. *Stems*, leafy, from  $\frac{1}{2}$  to 2 feet high. July to September.

Massachusetts to New Jersey and southward. A rare and pleasant find is the rose-colored coreopsis, in grassy, shallow swamps.

### Oyster Plant

*Tragopogon porrifolius*.—Family, Composite. *Color*, dark crimson. *Leaves*, grass-like, clasping the stem. *Heads*, many-flowered, large, solitary. *Peduncles*, somewhat thickened below the heads of flowers.

This plant may often be found growing wild along the borders of gardens and farms, escaped from cultivation. Its stem is stout, 2 or 3 feet high. Name means goat's beard, probably suggested by the long, plumose bristles of the pappus.



SALT MARSH FLEABANE (*Pluchea camphorata*)  
(See page 296)

## CHAPTER VII

### BLUE AND PURPLE GROUP

THE distinction between blue and purple flowers is often very fine. Mr. F. Schuyler Matthews says that "the blue flower is a creation of the imagination; in reality it does not exist, and the so-called blue is often a decided violet of dilute character." Those who have seen the fringed gentian and the larkspur may disagree with him. To my vision there are certainly blue flowers, and Nature shows no sign of eliminating that color from her category of tints. Many flowers, however, which are usually called blue sustain Mr. Matthews's statement, for the large majority of such flowers display the purple and violet colors. The hepatica is an example of a so-called blue flower which is violet.

All shades of blue and purple will be grouped in this chapter.

#### Swamp Pink

*Heloniás bullàta*.—Family, Lily. Color, purple, turning green with age. Perianth, of 6 segments. Stamens, 6, the filaments longer than the perianth. Anthers, blue. Capsule, 3-lobed. Flowers, in a dense raceme at the end of a long, leafless scape, 1 to 2 feet high, arising from a tuberous rootstock. Leaves, clustered at the base of the scape, 6 to 15 inches long, broad at apex, tapering at base, thin, flat, finely parallel-veined. A few small bracts on the scape, near the base. April and May.

A smooth perennial with hollow scape bearing a showy raceme of flowers in spring. In swamps, local and rare, northern New Jersey, southern New York to Virginia.

#### Field Garlic

*Allium vineàle*.—Family, Lily. Color, green or purple. (See Green Flowers, p. 23.)

#### Spiderwort

*Tradescantia virginiana*.—Family, Spiderwort. Color, blue to purplish. Sepals and petals, 3 of each, the sepals much smaller

## BLUE AND PURPLE GROUP

than the petals. *Flowers*, several in an umbel terminating the rather thick stems, 1 to 2 inches across, with slender, somewhat hairy pedicels. *Leaves*, long, narrow, about 1 foot long, channeled at the base where they clasp the stem. Stem stout, leafy, 8 inches to 3 feet tall. Plant straggling. May to August.

In rich, moist soil, Connecticut to Pennsylvania and South Carolina. Found 4,000 feet high in Virginia.

### Mountain Spiderwort

*T. montana*.—A slender-stemmed, simple-leaved species, with long, narrow *leaves* whose bases surround the stem with broad, loose sheaths. *Flowers*, similar to the preceding, smaller. June to August.

A Southern species found in woods and thickets of the Southwest as far north as Virginia and Kentucky.

### Day-flower

*Commelinia virginica*.—Family, Spiderwort. *Color*, blue. *Sepals* and *petals*, 3 of each, unequal. Sepals inclined to be bluish. *Stamens*, 3 fertile, and 3 sterile, smaller than the fertile, with cross-shaped anthers. *Style*, 1. *Capsule*, 3-celled. *Flower*, large, 1 inch across, showy. It lasts only for a day. *Stems*, diffusely branching, thick, spreading, fleshy, smooth. *Leaves*, lance-shape, 3 to 5 inches long, shorter and bract-like near the top, sheathing the stem at base, the sheaths fringed along the edges. Those leaves nearest the flowers form peduncled spathes which inclose the flowers, like hoods. June to September.

Damp, rich woods and banks, moist soil, southern New York to Florida and westward.

### Asiatic Day-flower

*C. communis*.—*Color*, deep blue. *Flower*, much like the last, with 3 perfect *stamens*, 3 sterile, bearing curious, cross-shaped anthers. The good stamens project from the flower on slender, long filaments. Of the *flower* 2 petals are much longer than the third. *Leaves*, lance-shape, sheathing above. *Spathes*, heart-shape, pointed. *Flowers*, in umbels. July to October.

Often a dooryard weed in New York and Massachusetts, frequently in city yards. South to Pennsylvania.

### Pickerel-weed

*Pontederia cordata*.—Family, Pickerel-weed. *Color*, violet-blue. *Perianth*, tubular, 2-lipped, the upper lip composed of 3 ovate lobes, the middle one of which is the longest; the lower lip also 3-divided, spreading, drooping. Upper lip marked with

## HARPER'S GUIDE TO WILD FLOWERS

a pair of yellow spots. *Stamens*, 6, 3 of them often being worthless, all borne upon the perianth-tube. *Anthers* and *style*, blue. *Leaves*, thick, triangular, heart or arrow-shape at base, marked with many parallel veins, on long, sheathing petioles, mostly from the root, 4 to 8 inches long, half as wide. *Flowers*, borne in a raceme or thick spike growing out of a sheathing bract. After fruiting the flower perianth coils from the apex downward and surrounds the fruit. June to October.

An aquatic, found on the borders of ponds and lakes from Nova Scotia to Florida westward to Minnesota and Texas. (See illustration, p. 301.)

### Mud Plantain

*Heteranthera reniformis*.—Family, Pickerel-weed. *Color*, pale blue or white. (See White Flowers, p. 44.)

### Grape Hyacinth

*Muscari botryoides*.—Family, Lily. *Color*, deep indigo blue. *Leaves*, long and narrow, from the base, fleshy. The *perianth* of this modest spring flower is like a round, small bell or globe with 6 little teeth on its edge. *Flowers* are crowded in long racemes at the end of a scape which rises from a coated bulb. April to June.

The specific name means, and the flower-bells suggest, a bunch of grapes. The generic name refers to its faint scent of musk. Originally cultivated, and now found in grass-plots and fence-corners, escaped and become wild. Massachusetts to Virginia and Ohio.

### Wake Robin

*Trillium erectum*.—Family, Lily. *Color*, purple or crimson, rarely white. (See Pink Flowers, p. 244.)

### Fleur-de-lis. Larger Blue Flag

*Iris versicolor*.—Family, Iris. *Color*, blue with darker veinings and touches of yellow, white, and green. The large flower deserves study. The *perianth* is divided into 6 lobes, 3 outer and 3 inner, which are united into a short tube below. The outer divisions curve gracefully backward, the inner stand erect. *Stamens*, 3, almost hidden under the 3 broad, petal-like *styles*, which bear their stigmas immediately under their 2-lobed, lip-like tips. *Capsule*, 3-lobed, 1½ inches long. *Leaves*, *equitant*, one arising from within the base of another, covered with a whitish bloom. *Stem*, 2 to 3 feet high, leafy, branched above. May to July.

Every one knows the beautiful iris, one of the blue flowers,



PICKEREL-WEED (*Pondeteria cordata*)

(See page 299)

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but so variegated with other tints as to be named after the rainbow. The stiff, sword-shape, folded leaves give it a dignity, and in the marshes where it grows it has few peers for loveliness. It is found in wet, low grounds the length of the Atlantic coast. Insect aid is necessary for the fertilization of this flower, and the bee, said to be a lover of blue colors, is often seen delving into the honeyed depths of the iris, powdering its head with the pollen, which it carries to another flower.

### Blue-eyed Grass

*Sisyrinchium angustifolium*.—*Family*, Iris. *Color*, violet-blue with yellow center. *Perianth*, of 6 divisions, each bristle-tipped, widely spreading, united in a tube below. *Stamens*, 3. *Styles*, 3. *Capsule*, 3-celled. *Stems*, 2-edged, flat, sometimes twisted, 3 to 14 inches tall, occasionally forking above. *Leaves*, narrow, about the same width as the stems, grass-like. *Flowers*, 1 to 3, on short pedicels, from a pair of bracts (the spathes), one shorter than the other. May to July.

A common, wide-open flower about  $\frac{3}{4}$  of an inch long, found in low meadows, in rather damp soil, from Newfoundland to Virginia, and westward to Colorado. One of its popular names is blue star.

*S. gramineum*.—*Color*, blue. This species has a smaller blossom than the last, on a taller stem. Two flowering stems arise from near the top, each bearing in an umbel 3 or more small flowers on slender pedicels. A single leaf subtends the flowers. Other leaves, all grass-like, spring from near the base, their edges rough. 8 to 18 inches tall. April to June.

Wet meadows, in grassy places on the edges of woods from Massachusetts to Florida and westward.

### Ram's Head Lady's Slipper

*Cypripedium arietinum*.—*Family*, Orchis. *Color*, purplish or crimson veined with white. The 3 *sepals*, entirely free, are of a brownish pink or purple. They are long and narrow, and curve so as to suggest the horns on a ram's head. *Petals*, 2 similar. *Lip*, a pocket or slipper, of a dull purple mottled with white veinings, showing a little green at the toe. *Flowers*, terminal, single. *Stem*, 8 to 12 inches high. *Leaves*, 3 or 4, dark green, ovate or elliptical, 6 to 8 inches long, regularly parallel-veined, pointed. May to August. (See Variegated Flowers, p 371.)

In cold, moist woods, rare and local, from Maine to Massa-

## BLUE AND PURPLE GROUP

chusetts, New York, and westward to Minnesota. It is a fortunate person who finds the ram's head lady's slipper. It might be easily recognized, for it does not take a lively imagination to see, in the lip, the mouth and head of a ram, while the long, curving sepals make the horns.

### Large Purple Fringed Orchis

*Habenaria fimbriata*.—Family, Orchis. *Color*, lilac or deep purple, rarely white. Upper *sepals* and *petals* toothed, united. The *lip* 3-parted, spreading like an open fan, much fringed, prolonged backward into a thread-like *spur*. *Flowers*, in a dense raceme terminating a stem 1 to 4 feet high. *Raceme*, 3 to 15 inches long. *Stem*, leafy. *Leaves*, lance-shape to oval, their bases sheathing the stem, the lower 4 to 10 inches long, upper smaller, acute. June to August.

Rich woods and meadows, often near a running brook. No richer-hued or more queenly flower rewards the seeker after our native orchids. In the old legends Orchis, the son of a rural deity, by his rustic manners offended the servants of Bacchus, who killed him. His parents prayed that a flower might be created to commemorate the name of their hapless son, and the gods, in answer, gave them the orchis.

### Early Coral Root

*Corallorrhiza trifida*.—Family, Orchis. *Color*, dull brownish purple. *Sepals* and *petals* small. *Lip*, white, smaller than the petals, 3-lobed. *Spur*, a small protuberance. *Flowers*, 3 to 12, in a raceme 1 to 3 inches long. *Scape*, 4 to 12 inches high, with no *leaves*, but a few sheathing scales near the base. The *root* branched and broken like a coral branch, gives the plant its name. May to July.

Parasitic on roots of other plants, or saprophytic, finding its nourishment on dead or decaying matter. In cool, shaded woods from New Jersey, Pennsylvania, and Ohio northward. In mountains of Georgia.

*C. odontorhiza*.—*Color*, purplish. *Sepals* and *petals*, long and narrow, marked with purple lines. *Lip*, white, spotted with deep pink, broadly ovate, or obovate, not notched. *Scape*, purplish, 6 to 15 inches high. *Flowers*, in a raceme. *Rootstock*, toothed, coral-like. August and September.

In woods, Massachusetts to Michigan, south to Florida and Mississippi.

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*C. maculata*.—*Color* of petals and sepals a brownish purple. *Lip*, white, spotted or lined with purple. A *scape*, 8 to 20 inches high, leafless, but, like the preceding, clothed with sheathing scales, bears many flowers, large for this genus, in a raceme 2 to 8 inches long. *Flower*, open, spreading; lip, broad and short. *Root*, much like the preceding. July and August.

From New England to Florida westward.

*C. striata*.—*Color*, dark purple. *Sepals* and *petals*, narrowly elliptical, showing 3 deeper purple lines. *Lip*, strongly purple-veined, broad, oval, concave. *Scape*, stout, leafless, 8 to 20 inches high, bearing a raceme of flowers at the tip. Bracts with each flower. May and June.

A rare and local species found in the latitude of northern New York to Oregon and California.

*C. Wisteriana*.—*Color*, purplish. *Flower*, open, with large, broad, white lip spotted with deep crimson. Flowers, pedicelled, in a raceme on a slender stem 8 to 16 inches high. Spur conspicuous. April and May.

Woods, Massachusetts to Florida, westward to Texas. The coral root orchids are among the least pretty of the Family, but are interesting, widely dispersed, and will repay study. The fruit capsules of all the species droop when ripe.

### Twayblade

*Listera cordata*.—Family, Orchis. *Color*, purplish. *Leaves*, 2, broad, opposite, sessile, roundish and heart-shaped, borne about the middle of the stem. *Lip*, much longer than the sepals and petals, deeply 2-cleft. A small orchid, not more than 4 to 10 inches high, with almost minute *flowers* in a slender raceme, each accompanied by a small bract. The outside sepals turn back. Roots fibrous. June to August.

From Nova Scotia south to New Jersey and west across the continent. Mossy woods and swamps.

*L. australis*.—A Southern species, found south of New Jersey, has minute, greenish-yellow *flowers* heavily striped with purple, in a loose, slender raceme terminating a stem 3 to 10 inches high. (See *Yellow Flowers*, p. 160.)

In shady or wet woods.

### Large Twayblade

*Liparis liliifolia*.—Family, Orchis. *Color*, brownish purple in lip, sepals, and petals. The latter very narrow, thread-like.

## BLUE AND PURPLE GROUP

*Sepals*, slightly turned back. *Lip*, large for the flower, broad, nearly  $\frac{1}{2}$  inch long. *Leaves*, 2, at the base of the flower-stem, 2 to 5 inches long, oval or ovate, clasping the stem with large, loose sheaths. *Flowers*, few or many, scattered, in terminal racemes, on slender pedicels. *Scape*, 4 to 10 inches high.

Low herbs from solid bulbs, with scales on the scape besides the 2 large leaves. Leaves, shining, green. Rich, moist woods, Maine to Georgia and westward.

### Putty-root. Adam-and-Eve

*Apléctrum hiemale*.—Family, Orchis. *Color*, variegated. (See p. 372.)

### Crane Fly Orchis

*Tipularia discolor*.—Family, Orchis. *Color*, greenish, tinged with purple. (See Green Flowers, p. 24.)

### Wild Ginger. Asarabacca

*Ásarum canadense*.—Family, Birthwort. *Color*, dull brownish. *Corolla*, wanting. *Calyx*, bell-shaped, spreading, with 3 short, pointed lobes lying flat, open. *Stamens*, 10. *Style*, 6-lobed at summit, with 6 spreading stigmas. *Fruit*, a fleshy, roundish capsule, bursting irregularly and scattering many seeds. *Leaves*, 2, on long petioles, from creeping rootstocks, kidney-shaped, 4 to 5 inches broad, thin, and translucent. Early May.

The flower grows low down near the root, from between the leaves, on a short peduncle. Its dull color enables it to hide itself with ease under the broad pair of leaves which rise above it. Unless one should recognize the leaf, it would be difficult to discover this plant. Its rootstock has a pungent, aromatic, ginger-like taste. It has pretensions to being among our earliest spring flowers, being mentioned by Mr. Gibson as among the possible March bloomers. Rich, damp woods. Common. (See illustration, p. 306.)

### Virginia Snakeroot

*Aristolochia Serpentaria*.—Family, Birthwort. *Color*, purplish or greenish. *Calyx*, tubular, bent like the letter S, smaller in the middle, the small limb at the top 3-lobed. *Petals*, none. *Stamens*, 6, with sessile anthers joining in pairs, each pair overtopped by one of the 3 lobes of the *stigma*. *Ovary*, 6-celled. *Leaves*, alternate, ovate, or long and narrow, heart-shaped at base, acute at apex. *Stem*, upright, 6 to 18 inches high, covered with soft, downy hairs, branched below. July.

Flowers all near the root on short peduncles. The root



WILD GINGER. ASARABACCA. (*Asarum canadense*)  
(See page 305)

## BLUE AND PURPLE GROUP

has medicinal properties. Rich woods, Connecticut to Florida.

### Sea Purslane

*Sesuvium maritimum*.—Family, Aizoaceae. *Color*, purple. *Petals*, none. *Calyx*, purplish inside, 5-lobed, with the numerous stamens inserted on it. *Styles*, 3 to 5. *Pod*, 3 to 5-celled, opening by a round lid at the top. *Leaves*, fleshy, opposite, on succulent stems lying on the ground, the flowers axillary.

A maritime herb found along the seacoast from Long Island to Florida.

### Moss Campion

*Silene acaulis*.—Family, Pink. *Color*, purple. *Calyx*, 5-toothed. *Petals*, notched at apex or entire, purple, rarely white. *Leaves*, needle-shaped, crowded on the stem like those of a moss. *Flowers*, small, sessile, single.

A delicate, low, Alpine species found in the White Mountains, New Hampshire, northward and westward. 1 or 2 inches high, tufted.

### Water Shield

*Brasenia Schreberi*.—Family, Water Lily. *Color*, purple. *Sepals* and *petals*, 3 or 4. *Stamens*, 12 or more. *Pistils*, numerous. *Flowers*, in leaf-axils, small, dull purple. *Leaves*, floating, 2 to 3 inches wide, alternate, roundish or oval, on a central, long petiole. June to August.

Growing in ponds and sluggish streams, an aquatic from a creeping rootstock.

### Early Meadow Rue

*Thalictrum dioicum*.—Family, Crowfoot. *Color*, greenish or purplish. (See Green Flowers, p. 30.)

### Purplish Meadow Rue

*T. dasycarpum*.—*Color*, purplish. *Flowers*, dioecious, the staminate blossoms with *sepals* and *stamens* of a purplish color, the filaments hair-like, soon drooping. No petals. *Flowers*, in compound panicles on purple stems, 2 to 4 feet tall. *Leaves*, compound, delicate, sessile, the leaflets mostly 3-toothed, often producing hairs tipped with glands or bits of wax. June to August.

In woods and rocky hills, New England to Florida and westward. Found 6,000 feet high in North Carolina.

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### Liverleaf. *Hepatica*

*Hepatica triloba* ("liver," from shape of leaf).—*Family*, Crowfoot. *Color*, pale blue or violet, sometimes nearly white or with a delicate trace of pink. *Petals*, none. *Sepals*, petal-like, colored, 6 to 12; directly beneath is an *involucr*e of 3 small, roundish, calyx-like leaves. *Leaves*, from the root, purple or mottled with purple, 3-lobed, heart-shaped at base, roundish in outline, leathery, evergreen.

When the plant first comes the brown leaves of the last summer are all the foliage it has, the new leaves appearing later than the flower. Buds and stem very hairy. One of our best-loved flowers, partly because one of the first. Mr. Gibson considers it the earliest. He says: "When I picked my arbutus in February, and when Burroughs and Doctor Abbott gathered their Claytonias, the latter in February, we could doubtless all have found our hepatica, too; and I am equally confident that my early blooms of rock-flower and everlasting were never so early as to have stolen a march on the liverworts. If the open winter lures any wood-blossom to 'open its eye,' it will surely be the liverwort, even as this flower occasionally anticipates the spring in ordinary winter weather. I have before me a letter from an authority who picked them under a foot of snow on December 9th, and this, too, in a winter not notably mild."

Common all over the Atlantic States in light woods. (See illustration, p. 309.)

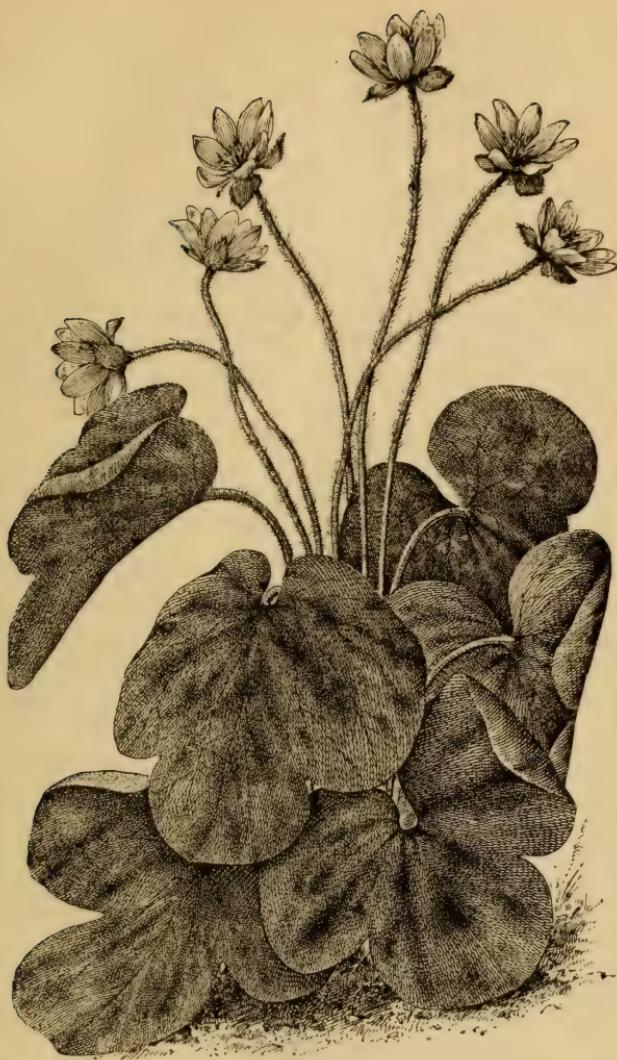
*H. acutiloba* differs from the preceding in having more pointed leaf-lobes, 3 or 5 in number. Whole plant softly hairy, 4 to 9 inches high.

Same range as preceding.

### Purple Clematis

*Clématis ochroleuca*.—*Family*, Crowfoot. *Color*, purple. *Corolla*, wanting. *Calyx*, of four leathery *sepals*, joined at their base, purple on the outside, yellow within. *Flowers*, large, on long peduncles, solitary, terminating the branches. *Fruit*, a collection of achenes, each furnished with a plumose tail. *Leaves*, opposite, sessile, conspicuously net-veined, ovate, sometimes 3-lobed, soft-silky underneath. *Stems*, low, 1 to 2 feet high, erect, generally unbranched. May.

Southern New York and Staten Island, to Georgia, in light woods and copses. Rare and local. One of the pleasant



LIVERLEAF (*Hepatica triloba*)  
(See page 308)

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surprises awaiting the watchful botanist, if he find the right place, is the purple clematis. Later in summer the heads of fruit, with their airy, plumed appendages, will scatter the seeds wherever the breeze takes them.

### Tall Larkspur

*Delphinium exaltatum*.—Family, Crowfoot. Color, deep, purplish blue. Sepals, 5, one with a long spur at its base. Petals, 4, in pairs, the upper pair projecting long spurs into the spur of the sepal, the lower pair raised on short claws. Pistils, 3, making as many erect, many-seeded pods. Flowers, softly hairy, in long, terminal racemes, showy. Leaves, deeply cleft into 3 to 5 divisions which are acute at apex, wedge-shaped. July.

Rich soil, mostly woods, from Pennsylvania to Minnesota and southward.

### Dwarf Larkspur

*D. tricorne*.—Color, bright blue, occasionally white. Flowers, few, in a loose raceme. Stem, simple, erect, from a cluster of tuberous roots. 1 to 3 feet high. April and May.

West Pennsylvania, southward.

### Wild Monkshood

*Aconitum uncinatum*.—Family, Crowfoot. Color, blue. Sepals, 5, irregular; the upper shaped like a helmet or hood. Petals, 2, small, standing on long claws, hidden under the hood of the sepal. Pistils, 3 to 5. Leaves, with petioles, 3 to 5-lobed, the divisions coarsely toothed. Summer.

The singular flowers are showy, the "helmet" being prominent, obtusely rounded above. They hang loosely from the summit of weak, often climbing stems. The plant loves the banks of small streams. Mountains of Virginia northward to New Jersey. The aconitum of our pharmacies is *A. napellus*. All the species are highly poisonous.

### White Poppy

*Papaver somniferum*.—Family, Poppy. Color, white or blue. (See White Flowers, p. 75.)

### Sea Rocket

*Cakile edentula*.—Family, Mustard. Color, purplish. Sepals and petals, 4, open and spreading. Stamens, 6. Pod, short, thick, 2-jointed, each half containing 1 seed; the lower joint round; upper, when ripe, 4-angled, beaked. Stem, 8 to 14 inches

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high. *Leaves*, alternate, obovate, broader at apex, with toothed and wavy margin, fleshy. July to September.

Not pretty. A fleshy plant with large display of foliage and small flowers. Growing in thick masses along the coast and the shores of the Great Lakes.

### Toothwort

*Dentaria laciniata*.—Family, Mustard. *Color*, white or pale purple. (See White Flowers, p. 80.)

### Slender Toothwort

*D. heterophylla*.—*Color* of petals and sepals, purple. *Flowers*, terminating a slender scape, 10 to 14 inches high, rather widely scattered, followed by *pods* 1 inch long, linear, tipped with the style. *Leaves*, of two sorts, those from the base on long petioles, 3-divided, the divisions wavy-toothed; those on the stem 2, opposite, petioled, 3-divided, the segments very narrow, few-toothed. April and May.

In low, moist woods from New Jersey and Pennsylvania southward in the mountains to Georgia and Tennessee.

### Pitcher-plant. Side-saddle Flower. Huntsman's Cup

*Sarracenia purpurea*.—Family, Pitcher-plant. *Color*, deep, dull purple, with a prominent, greenish yellow style. *Sepals*, 5, colored, with 3 bractlets underneath. *Petals*, 5, arched, broad above, narrow below, fiddle-shape. *Stamens*, numerous. *Flowers*, single, nodding on scapes about 1 foot tall. A large, round *ovary* in the middle of the flower is tipped with a greenish yellow style, expanded into a 5-rayed, umbrella-shaped body, terminating in hooked *stigmas*. *Leaves*, from the root, hollow, pitcher-shaped, hooded, striped with purple. They hold water, in which insects are drowned. Bristles pointing downward on the inner surface prevent an insect which has fallen in from escaping. June.

This plant is carnivorous, the drowned insects being appropriated as food. I have found the pitcher-plant in great numbers, from the most tiny to very large, in marshy land by the side of railroads, generally with many remains of drowned insects in the leaf-cups. Taken up by the roots and placed in water, it makes a veranda ornament that will keep fresh a long time. In peat-bogs, along the shore, to Florida and Kentucky, also in the Lake region.

In Virginia and southward a larger pitcher-plant is found, with leaves sometimes 3 feet long. It is called *trumpets* (*Sarracenia flava*), with a large, drooping, yellow flower. The

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*Darlingtonia* of California is the only other member of this order in the United States.

### Thread-leaved Sundew

*Drosèra filifòrmis*.—*Family*, Sundew. *Color*, magenta purple. Parts of the flower in fives or sixes. *Styles*, divided, so as to seem like 6 to 10, but they are in reality 3 to 5. *Flowers*, on one side of a naked scape,  $\frac{1}{2}$  inch broad. This species differs in the shape of its leaves and color of its blossoms from the round-leaved sundew (p. 81). *Leaves*, all from the base, long, thread-like, covered with purple glands raised on hairs. June to September.

It is insectivorous, and catches small insects among its sticky, hairy glands, assimilates and digests them. One may often find dried remains of hapless insects scattered along the edges of the leaves and stems. In wet sand, as the New Jersey pine barrens, following the coast, Massachusetts to Delaware.

### Garden Orpine. Live-for-ever

*Sèdum purpùreum*.—*Family*, Orpine. *Color*, purple. This fleshy plant with thick stems about 2 feet high, and stout, oval leaves, has escaped from gardens and attached itself to congenial rocky soil in some places. August and September.

### Marsh Five-finger. Purple Cinquefoil

*Potentilla palústris*.—*Family*, Rose. *Color*, dark purple. *Calyx*, open, 1 inch broad, 5-cleft, purple inside; bractlets between the divisions. *Corolla*, of 5 purple petals, shorter than the calyx. *Stamens*, numerous. *Fruit*, of several achenes in a roundish head on a large and spongy receptacle. *Flowers*, few, clustered in a flat cyme from a smooth stem which roots at the base. *Leaves*, pinnate, with 5 to 7 oblong, toothed leaflets, light green above, downy beneath. June to August.

Cold bogs from Pennsylvania and New Jersey northward.

### Water Avens. Purple Avens

*Gèum rivális* (name means "good taste," referring to the pleasant taste of the roots of several species).—*Family*, Rose. *Color*, purple. *Calyx*, 5-divided, of a brownish purple color. *Petals*, 5, large, notched, contracted below into claws. *Stamens*, many. *Style*, jointed in the middle, the upper half feathery. *Fruit*, a head of dry achenes. A plant about 2 feet high, found in bogs and wet meadows, with several large nodding *flowers* on an unbranched stem. *Leaves* mostly from the root, irregularly and

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deeply parted. A few on stem, 3-lobed, or divided into 3 leaflets. May to July.

Low, wet meadows and bogs from New Jersey and Pennsylvania northward.

### Wild Lupine

*Lupinus perennis*.—Family, Pulse. Color, purplish blue. Calyx, deeply 2-divided. Corolla, papilionaceous. Flowers, showy, in long racemes. Stems, 2 feet high, including the pods, hairy. Leaves, compound, palmately divided into 7 to 11 oblanceolate leaflets. May and June.

Along the sides of railroads and edging the sandy woods, everywhere from Maine to the Gulf, in its season, great bunches of lupine may be seen, patches of blue in the midst of the pretty, conspicuous leaves. (Name from *lupus*, a wolf, because these plants were thought to consume the fertility of the soil.)

### Rabbit-foot or Stone Clover

*Trifolium arvense*.—Family, Pulse. Color, at first purplish, then a soft gray. Flowers, in compact, roundish heads, silky and downy. Stipules present. With persistent, strong roots, it may become a troublesome weed in lawns.

In the fields, its soft, purplish gray bloom varies with a pleasing tint the greens and browns of grasses. 5 to 10 inches high. In dry, poor soil, common.

### Alfalfa. Lucerne

*Medicago sativa*.—Family, Pulse. Color, purple. Flowers, in racemes. Pods, spirally twisted. Cultivated for fodder, and often becomes wild.

### Tick Trefoil

*Desmodium nudiflorum*.—Family, Pulse. Color, purple. Leaves, 3-foliate, with roundish or ovate leaflets, pale beneath. Corolla, papilionaceous. July and August.

The desmodiums, of which there are many species, are distinguished by their jointed pods, which are, mostly, straight on the upper margin, scalloped on the lower. They are covered with bristly hooks, by which they are caught in the hair or fleece of animals and widely scattered. One's feminine skirts are often the medium of such dissemination, much to one's annoyance after a walk in the woods in early fall.

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All these plants have purple corollas, generally rough stems, and variable, 3-foliate leaves.

The *D. nudiflorum* bears racemes of pedicelled flowers on, generally, leafless scapes 2 feet high. The 3-foliate leaves are numerous on the end of a flowerless stem, attended by bristly stipules. Pod raised on a stalk longer than the pedicels. One of the most common species. Dry woods in all the Eastern States.

*D. rotundifolium* has round leaflets. The racemes of deep-purple flowers appear, with the leaves, in the axils and on the ends of branches. *Stems*, prostrate and softly hairy. Both margins of the *pod* strongly wavy or scalloped.

Massachusetts to Florida. Dry woods.

*D. grandiflorum* bears blossoms and leaves on the same stem. *Leaves* crowd the top of the stem, none below, and the raceme of flowers rises above them. *Leaflets*, 4 to 5 inches long, broad, pointed.

Rich woods, Maine to Ontario and southward.

*D. bracteosum* is ascending, with straight stems. *Leaflets*, 4 or 5 inches long, lance-shaped, pointed, with large stipules and bracts. *Petioles*, shorter than the leaflets. *Pods*, with several long joints.

In thickets and dense woods, New Hampshire to Minnesota and southward.

*D. paniculatum* has numerous drooping panicles of flowers on tall, straight stems. *Leaflets*, thin, narrow, oblong to lance-shaped, 3 to 5 inches long. *Stem*, for the genus, smooth, slender, and tall.

Maine to Minnesota and southward.

*D. canadense*.—This is the tallest of the desmodiums, 3 to 6 feet high. It has coarse, hairy *stems*, with large, showy *flowers*. *Stipules*, small. Racemes bearing many flowers, and pods of few roundish joints.

Open woods and banks of streams from North Carolina northward, throughout the Eastern States. The flowers of *Desmodium* appear in late summer or early fall. The specific names generally indicate some peculiarity of the different species, but most people will be satisfied to recognize the

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genus, calling the plant with sticky, jointed pods which cling to the clothing, small, purplish, papilionaceous flowers, and 3-foliate leaves, a desmodium.

### Bush Clover

*Lespedeza procumbens*.—*Family*, Pulse. *Color*, purple. *Leaves*, of 3 leaflets, with awl-shaped stipules. *Corolla*, papilionaceous. *Flowers*, often of 2 kinds; the larger, growing in panicles or clusters, are not so fertile as the smaller, which are mingled with the others along the stem and branches. The latter are usually



BUSH CLOVER (*Lespedeza procumbens*)

without petals. *Pods* have 1 or 2 joints, with a single seed in the upper; the lower generally seedless. *Stems*, 12 to 30 inches long, trailing and prostrate. Softly hairy. August and September.

Dry, sandy soil, near the coast, from New Hampshire to Florida and westward to Texas.

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*L. violacea*.—Unlike the last in that the *stem* is erect, ascending, much branched. *Flowers*, in scattered panicles on the branches. *Corolla*, violet purple. *Pod*, ovate, acute. *Leaflets*, 3, petioled, obtuse, small. *Stem*, 1 to 3 feet high. August and September.

Dry soil, New England to Florida.

*L. Sturtevi*.—*Stem*, covered with down, erect, stiff, with few branches but many leaves, 2 to 4 feet high. *Flowers*, numerous, both kinds in axillary, almost sessile clusters. Late summer.

Dry, sandy soil, Long Island to Virginia and westward.

*L. virginica*.—*Stem*, simple, erect, sometimes branched. Leaves and both kinds of flowers thickly clustered on the stem, which is 1 to 3 feet high.

Time and habitat same as last.

*L. capitata* has globular heads with yellowish white *corollas*, a purple spot in the standard. *Peduncles*, short. Flowers densely clustered in the upper axils. *Stem*, softly downy, 2 to 5 feet high. *Leaves*, sessile, with small stipules. August and September.

Dry fields everywhere in our range.

*L. angustifolia* has linear, 3-foliate leaves on short petioles, and flowers on long peduncles, in narrow, oblong heads. 2 to 3 feet high. August and September.

Dry, sandy soil, Massachusetts to Florida and westward.

Many of the bush clovers are pretty plants, with fine, delicate foliage. Others are tall and stiff, with short-stemmed leaves and rigid heads of flowers. The genus may be known by the 3-foliate, clover-like leaves and smooth, 1-seeded, single or double-jointed pods. The pods of the nearly related desmodiums have several joints, and they are rough, clinging to the clothing.

### Spring Vetch. Tare

*Vicia sativa*.—Family, Pulse. *Color*, light purple. *Calyx*, 5-cleft. *Corolla*, papilionaceous. *Flowers*, large, one or a pair in the upper leaf-axils, showy. *Leaves*, pinnate, of 5 to 7 pairs, the leaflets narrow, tipped with a tendril. *Stipules*, broad. *Petioles*, short. July and August.

This is the common tare that springs up in cultivated

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fields from New England to New Jersey and southward.  
Cultivated for fodder.

*V. tetrasperma*.—Weak-stemmed,  $\frac{1}{2}$  to 2 feet long. *Leaflets*, short-petioled, 4 to 6 pairs, linear. *Pods*, 4-seeded. *Flowers*, on long peduncles, equaling the leaves. May to September.

Waste places and meadows, New England to Virginia.

### Hairy Vetch or Tare

*V. hirsuta*.—*Color*, pale purplish blue or white. *Peduncles*, long, bearing 3 to 6 flowers in the axils. *Leaflets*, 12 to 14, one or more tendrils at the apex. May to September.

In fields and waste places. New England to Florida and westward.

### Beach Pea

*Lathyrus maritimus*.—*Family*, Pulse. *Color*, purple. *Corolla*, papilionaceous. *Flowers*, nearly an inch long, in panicles. *Leaves*, of 6 to 10 leaflets, with halberd-shaped stipules, nearly as large as the leaflets. *Stems*, stout, trailing or climbing by means of tendrils, coarse, spreading in a low clump; slovenly-looking, because the flowers quickly give way to the pods, on the ends of which the faded corolla clings. June to September.

Seashores from Long Island southward.

### Marsh Pea. Marsh Vetchling

*L. palustris*.—*Color*, light purplish blue. *Corolla*, papilionaceous. *Flowers*, about  $\frac{1}{2}$  inch long, delicate and pretty, 4 or 5 together. *Leaves*, compound, with 2 to 4 pairs of long and narrow leaflets, all with long stipules, acute at both ends. *Tendrils* found on some, but not all of the leaves. *Stem*, weak and trailing, 1 to 3 feet long. July.

Common from New Jersey westward and southward. (See illustration, p. 318.)

### Milk Pea

*Galactia regularis*.—*Family*, Pulse. *Color*, purple. *Calyx*, 4-divided. *Corolla*, papilionaceous. *Pod*, flat, hairy, with several seeds. There are also ripened a few subterranean, fleshy pods. *Flowers*, in large, handsome racemes, irregular, 4 to 8 in a raceme. *Stem*, prostrate, nearly smooth. *Leaves*, of 3 oblong to elliptical leaflets.

In dry woods or sandy soil, near the coast, New York to Florida.



MARSH PEA. MARSH VETCHLING. (*Lathyrus palustris*)  
(See page 317)

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### Common Flax

*Linum usitatissimum*.—Family, Flax. Color, purplish blue. All parts of the flower in fives, regularly alternate with one another. Flowers, in terminal corymbs, large, delicate. Leaves, alternate, linear, sessile, entire, without stipules.

The fibrous part of the plant is used in the manufacture of linen cordage, sail-cloth, etc. Its seed furnishes flax-seed oil. Cultivated in this country, and in places escaped from cultivation.

### Violet Wood Sorrel

*Oxalis violacea*.—Family, Wood Sorrel. Color of petals, violet. Sepals, 5, soon withering. Stamens, 10, the alternate ones short. Pistil, 1, with 5 styles. Flowers, several, in umbels, on scapes  $\frac{1}{2}$  inch to 2 inches high. Leaves, from the root, petioled, divided into 3 broad leaflets which are notched at the apex. June.

This pretty little plant of the open and rocky woods has no true stem. Both leaves and flower-scapes arise from a bulbous root. Scapes 6 to 8 inches high, taller than the leaves. The oxalis has 2, sometimes 3, different lengths of stamens and pistils.

### Wild Cranesbill. Wild Geranium

*Geranium maculatum*.—Family, Geranium. Color, crimson or purplish. (See Pink Flowers, p. 262.)

### Long-stalked Cranesbill

*G. columbianum*.—Color, purple. Parts of the flower in fives. Stamens, 10. In this species the peduncles are longer than the leaves. Stems, slender, somewhat weak, hairy. Leaves, 1 inch or more in diameter, very deeply cleft into 5 to 7 divisions, the segments cut into narrow, irregular lobes. Petioles, slender, those from the base 5 to 6 inches long. Flowers, in pairs, on long peduncles springing from the axils. May to July.

In fields and edging roadsides, from New Jersey and Pennsylvania southward.

### Milkwort

*Polygala Nuttallii*.—Family, Milkwort. Color, purple. This is a low-growing species, 4 to 7 inches high, with slender, upright stem branching above. Leaves, small, linear, numerous, all on stem. Flowers, on very short pedicels, making a long spike, from which the earlier flowers drop as the floral spike grows, leaving the bracts

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MARSH MILKWORT (*Polygala cruciata*)

which form a cluster of cone-like scales. August and September.

Dry, sandy soil, along the coast from Massachusetts to Delaware, southward and westward.

### Marsh Milkwort

*P. cruciata*.—Color, greenish or dull purple. Sepals, 5, 3 green, 2 colored like the petals. These form the wings, larger than the others. Flowers, in clover-like heads or spikes, on low stems, 4 to 15 inches high. Stems, square, slightly winged. Leaves, in

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whorls of 4, long, narrow, a few scattered. Heads of flowers rather large and showy. July to September.

Sandy swamps, from Maine to Florida and westward. Sometimes in drier soil. When growing together they have a moss-like appearance. (See illustration, p. 320.)

*P. brevifolia*.—*Color*, rose purple. A species resembling the last, but smaller, lower, more slender. *Leaves*, also in whorls of fours, and often scattered.

Time of blossoming and range nearly the same as *P. cruciata*.

### Bird-foot Violet

*Viola pedata* (the common and specific names are taken from the resemblance of the leaves to a bird's claws).—*Family*, Violet. *Color*, the 2 upper petals dark purple, the 3 others pale to violet blue. The *stamens* make a central, yellow eye. *Sepals*, 5, eared. *Petals*, 5, one of them spurred. *Stamens*, 2, with appendages which penetrate the spur cavity. *Flower*, 1 inch across. *Leaves*, much cut into 3 main divisions, linear, the side segments all cleft and toothed. One of the "stemless violets," its flower-scapes and leaves springing from a short, erect rootstock. *Scapes* 3 to 10 inches high, about the length of the petioles. April to June.

Dry soil, fields and hillsides, in open places, often abundant, from Maine to Minnesota, southward to Florida.

One of the largest and prettiest of the wild violets. The finely cut foliage, a variation from the prevailing violet type of entire and heart-shaped leaf, adds much to its beauty.

I recall always with satisfaction a sterile knoll in Connecticut, which, when a child, it was one of the pleasures of each recurring spring to visit. There I could gather the bird-foot violet by the handful, yet make no impression upon the spacious bed of bloom; and since I have seen adult classes in botany rush in a body to inspect and secure a few sparsely scattered specimens of this flower, I think my childish enthusiasm was justifiable.

Cleistogamous, self-pollinating blossoms, without colored petals, may be found near the roots in midsummer.

### Arrow-leaved Violet

*V. sagittata*, deep blue or purplish, with entire, arrow-shaped, petioled leaves, sometimes toothed and variously cut near the base, is one of our common species. The *spur* is short and thick; *petals*,

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rather large and finely bearded. *Plant*, hairy or smooth. *Scapes*, 4 to 9 inches high. April and May.

In wet meadows and marshes near the coast, Massachusetts to Minnesota and southward.

*V. cucullata*.—*Color* of petals, violet blue, darker toward the center. *Flowers*, on peduncles taller than the petioles. *Leaves*, pointed, not cut. April and May.

Our commonest violet, found in the grass, in fields and meadows, in early spring. Cleistogamous blossoms present.

*V. palmata*.—*Color*, violet purple. *Leaves*, all from the root, the early ones roundish or heart-shaped; later ones variously lobed, often from 2 to 5 inches long, the middle division longest and widest. *Petioles*, rather long, hairy, as also the veinings of the leaves. *Flowers*, on scapes a little shorter than the petioles. Cleistogamous flowers on creeping peduncles.

Dry soil of woods and fields, Massachusetts to Minnesota and southward.

### English Violet. Sweet Violet

*V. odorata*.—*Color*, blue, sometimes white or pale blue. *Flowers*, fragrant. *Leaves*, clustered, broadly heart-shaped, on petioles.

This is the English violet, so much cultivated and sold on our city streets. It often escapes from cultivation and is found in fields.

### Pansy. Heart's-ease

*V. tricolor*.—*Color*, purple and yellow. *Leaves*, cut or entire.

This pretty little violet is a reminder of our grandmothers' gardens. It is the origin of the pansy of infinite variety of size and color, than which, probably, no flower is more sought after for cultivation. The heart's-ease has run wild in many places.

### Long-spurred Violet

*V. rostrata*.—*Color*, lilac, with a deeper colored spot near the center. Its *spur* is longer than the petals. This is a violet with leafy stems, the *leaves* being roundish to heart-shaped, toothed, the upper ones pointed at apex. *Flowers*, on long peduncles. *Stipules*, below the leaves, narrow, fringed. *Stem*, much branched, 2 to 7 inches high. June and July.

Shaded hillsides, and moist, rocky woods, New England to Michigan, southward to Georgia. Found 2,500 feet high in Virginia.

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### Dog Violet

*V. conspersa*.—*Color*, pale blue, sometimes white. *Leaves*, upper, heart-shaped, pointed; lower, kidney-shaped, crenate, ovate to lance-shaped, with cut, fringed *stipules*. *Flowers*, many, on long peduncles, axillary. Rootstock branched, sending up tufts of slender stems, leafy to the top, 2 to 6 inches high. Spur of corolla half the length of the petals. *Stem*, at first simple, erect; later, produces low, reclining branches on which, from the same axils where the early blossoms appeared, cleistogamous flowers on short peduncles are borne. March to May.

In shady grounds, moist or wet soil. Quebec to Minnesota, southward to Kentucky and North Carolina.

### Swamp Loosestrife. Water Willow

*Décodon verticillatus*.—*Family*, Loosestrife. *Color*, sometimes called purple, but more correctly magenta. (See Pink Flowers, p. 269.)

### Loosestrife

*Lýthrum hyssopifólia*.—*Family*, Loosestrife. *Color*, pale purple. *Calyx*, tubular, with 5 to 7 teeth; other teeth, called "processes," alternate with them. *Petals*, 5 to 7. *Stamens*, equal in number to or twice as many as petals, usually 4 to 6. *Fruit*, a 2-celled pod. *Flowers*, small, inconspicuous, single, growing in the upper leaf-axils. *Leaves*, alternate, scattered, oblong to linear, sessile, obtuse at apex, rounded at base. June to September.

A smooth, low herb, 6 to 24 inches high. Salt marshes, near the coast of Maine to New Jersey.

### Clammy Cuphea

*Cuphea petiolata*.—*Family*, Loosestrife. *Color*, magenta purple. *Calyx*, an elongated tube swollen or slightly spurred near the base, divided into 6 teeth above, with other smaller teeth between them. *Petals*, 6, of unequal size, inserted on the top of the calyx-tube. They quickly shrivel after the flower is plucked. *Fruit*, a capsule, thin, easily ruptured by the springing back of the seed-bearing part of the capsule. *Stem* and *calyx*, sticky, hairy, often reddish. *Flowers*, showy, in racemes or single.

Dry soil, in pastures or fields, common from New Hampshire to Georgia and westward. Found 3,300 feet high in West Virginia.

### Water Milfoil

*Myriophyllum scabratum*.—*Family*, Water Milfoil. *Color*, purplish. An aquatic, with the flowers coming to the surface of the

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water. *Flowers*, of 2 sorts, the staminate with a short calyx-tube and 4 stamens; pistillate, 2 to 4 petals, 4 styles, and a 2 to 4-celled ovary. Flowers in spikes, 4 to 8 inches long, seen above the water. *Leaves*, those accompanying the flowers linear, cut-toothed, whorled, 4 or 5 in a whorl, or scattered; those below on the slender stem, finely cut into thread-like divisions, also whorled.

Rhode Island to Florida and westward, near the coast in shallow ponds with muddy bottoms.

### Low Water Milfoil

*M. humile*.—*Color*, purplish. Few or no *leaves* on the flowering stems. Those under water pinnately parted into narrow, thread-like divisions. *Stems*, slender, 1 foot long, with small, sessile, spiked *flowers*.

Ponds, ditches, and pools, Maine and Vermont to Maryland, and locally westward.

### Sea Lavender. Marsh Rosemary

*Limonium carolinianum*.—*Family*, Leadwort. *Color*, lavender. Parts of the flowers in fives. *Ovary*, 1-celled, containing a single seed. *Petals*, with long claws. *Flowers*, small, growing on one side of naked branches, in panicles, 1 to 3 flowers together, 1 to 2 feet high. The *calyx* dries and remains through the winter, making this a plant much sought after for dried, winter bouquets. *Leaves*, all from the root, thick, oblong, tapering into long petioles, tipped with a bristly point. *July to October*.

Salt marshes, along the coast, from Labrador to Texas. A familiar plant on Long Island.

### Pennywort

*Obolaria virginica*.—*Family*, Gentian. *Color*, white or purple. (See White Flowers, p. 118.)

### Fringed Gentian

*Gentiana crinita*.—*Family*, Gentian. *Color*, blue. *Calyx*, 4-cleft. *Corolla*, 2 inches long, a tube with 4 spreading lobes finely fringed around their edges. *Stamens*, 4, with glands between the filaments at their bases. *Style*, 1 or none. *Stigmas*, 2. *Leaves*, opposite, acute at apex, broader, somewhat rounded or heart-shaped at base. *Flowers*, solitary, or a few at top of a stem, 1 to 2 feet high, standing stiffly erect. *September and October*.

The famed beauty of this plant lies chiefly in its clear blue color, for it is scarcely graceful. The corolla opens only in



FRINGED GENTIAN (*Gentiana crinita*)  
(See page 324)

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sunshine, and closes upon the approach of a shower. Moist woods, low grounds, often along springy roadsides, Maine to Idaho, southward to Georgia. In places this flower grows abundantly, but it is by no means common. (See illustration, p. 325.)

### Closed or Bottle Gentian

*G. Andréwstii*.—*Color*, blue, sometimes plaited with white, when old turning a reddish purple. *Calyx*, tubular, with linear, recurved lobes. *Corolla*, tubular with closed or nearly closed lobes, with intervening broad appendages or plaits. *Stamens*, with anthers joined making a tube. *Leaves*, starting from a narrow base, become broader in the middle, acute at apex, whorled or opposite. *Flowers*, in clusters, terminal or several in the upper axils, crowded together, 1 to 2 inches long. August to October.

Moist ground, low woods, from Maine to Georgia and westward to Missouri. This would seem, of necessity, to be a self-pollinating flower. But bumblebees have been seen cutting their way into the closed corolla, and in their search for nectar they may become pollen-carriers to another flower. It is not uncommon to see the petals lacerated. (See illustration, p. 327.)

### Stiff Gentian. Ague Weed

*G. quinquefolia*.—*Color*, pale blue. *Calyx*, tubular, with 5 narrowly linear lobes. *Corolla*, a long, narrow tube divided into 5 bristle-pointed, triangular broad lobes. *Flowers*, about 5, at the summit of the stem or branches in racemes or panicles on slender pedicels. *Stem*, 2 feet tall or less, slender. *Leaves*, with heart-shaped or clasping bases, pointed, ovate to lance-shaped. August to October.

Moist or dry hillsides, Maine to Florida and westward to Missouri. Found 6,000 feet high in North Carolina.

### Periwinkle. Blue Myrtle

*Vinca minor*.—*Family*, Dogbane. *Color*, blue. Parts of the flower in fives. *Calyx* and *corolla*, tubular; limb of the corolla, salver-form. *Stamens*, joined to the corolla. Smooth, prostrate plants, represented in the tropics by shrubs or trees, generally poisonous plants. *Leaves*, opposite, thick, shining, evergreen. *Flowers*, single, in the axils, peduncled. February to May.

Escaped from cultivation, found now in corners of neglected gardens, along roadsides, etc.



CLOSED OR BOTTLE GENTIAN (*Gentiana Andrewsii*)  
(See page 326)

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### Purple Milkweed

*Asclepias purpurascens*.—Family, Milkweed. (See description of flower, p. 10). *Color* of corolla, deep purple. *Leaves*, opposite, broad, ovate or oblong, tapering to a sharp point, the upper ones velvety, the lower hard and smooth, 3 to 8 inches long. *Flowers*, in umbels, 3 or 4 umbels terminating the leafy stem, on short pedicels. June and July.

New Hampshire to Minnesota and southward. In dry ground, as fields and thickets, along roadsides. Found 2,000 feet high in the Catskills. A handsome milkweed, with dark green leaves whose veins are raised, pointed forward and prominent on the under side. (See illustration, p. 329.)

*A. amplexicaulis*.—*Color* of corolla, greenish purple. *Leaves*, sessile or heart-shaped and clasping the stem, obtuse and bristle-pointed at apex, 3 to 5 inches long. *Stem*, smooth, pale green, 2 to 3 feet high. *Umbel* of many *flowers* regular, all pedicelled, at the tip of a long peduncle, with sometimes a second umbel, shorter peduncled, at the base. May to August.

Dry, sandy soil, fields and woods. New Hampshire to Nebraska and southward. Found 3,000 feet high in Virginia.

### Common Milkweed. Silkweed

*A. syriaca*.—*Color* of corolla, pink or purple. (See Pink Flowers, p. 284.)

### Blue Phlox

*Phlox divaricata*.—Family, Polemonium. *Color*, pale lilac or bluish. *Calyx*, tubular, with linear teeth longer than the tube. *Corolla*, with spreading border, the divisions notched, a little longer than the tube. *Flowers*, in cymose clusters, pedicelled, on ascending stems. *Leaves*, on the flower-stems, lance-shaped, sessile; those on sterile shoots obtuse, oblong or ovate. Plant 12 to 18 inches high. April to June.

In rocky, moist woods, New England to Florida and westward.

### Greek Valerian

*Polemonium reptans*.—Family, Polemonium. *Color*, blue. Parts of the flower in fives. *Calyx* and *corolla*, bell-shaped, the latter with short tube and open border. *Flowers*, few, in corymbs, about  $\frac{1}{2}$  inch long, nodding on weak, prostrate stems. *Leaves*, pinnate, 5 to 15 leaflets, ovate or lance-shaped. Upper ones often run together. May and June.

Woods, New York to Minnesota and southward. This



True Forget-me-not. (*Myosotis scorpioides*).





PURPLE MILKWEED (*Asclepias purpurascens*)  
(See page 328)

## HARPER'S GUIDE TO WILD FLOWERS

dainty flower bears transplanting and thrives in our city gardens, where I have made its acquaintance.

### Beggar's Lice. Stickseed

*Lappula virginiana*.—Family, Borage. *Color*, pale blue, nearly white. *Calyx*, tubular, deeply 5-cleft. *Corolla*, salver-form. *Fruit*, 4 nutlets, each becoming a sort of bur, covered with prickles, by which means the seeds are caught in fleece of sheep or coats of animals and disseminated. *Flowers*, insignificant, on short pedicels, clustered in loose panicles.

Dry woods, thickets, and roadsides, Maine to Minnesota, south to the Gulf.

### Scorpion Grass. True Forget-me-not

*Myosotis scorpioides*.—Family, Borage. *Color*, light blue with yellow eye. *Calyx*, tubular. *Corolla*, salver-form, the lobes open and spreading. *Leaves*, oblong or lance-shape, entire, sessile, on slender, weak *stems*, which are loosely branched, rooting at the lower joints.

Cultivated and sometimes found wild, escaped.

*M. laxa*.—*Color*, blue. *Flowers*, in very loose racemes. *Leaves*, oblong or lance-shaped, softly hairy. June and July.

Marshes, banks of small streams. Every one knows the little forget-me-nots, and where to find them in the wet, grassy banks of brooks. They nestle modestly among mosses and galiums, peeping with mild eyes around clumps of onoclea fern. The flowers bloom in long, thin, leafless spikes. The stems and leaves, when rubbed upward, are somewhat rough.

Those who have seen the blue forget-me-not in shady, wet places in Europe, with its large, bright blue corolla and its full spike of blossoms, will say that we do not know this flower. Our blossoms are few and scanty, buds and fruit occupying the most of the flowering raceme.

### Virginian Cowslip. Bluebells. Lungwort

*Mertensia virginica*.—Family, Borage. *Color*, light blue. *Calyx*, short, deeply 5-parted. *Corolla*, trumpet-shaped, about 1 inch long. *Stamens*, 5. *Flowers*, in loose panicles or clusters, the lower ones with leafy bracts, all on slender pedicels, often drooping. *Stem*, pale green, erect, 1 to 2 feet high. *Leaves*, alternate, entire, quite veiny. April and May.

A showy flower, pinkish in bud, purplish blue when in full



Vervain. (*Verbena officinalis*).



## BLUE AND PURPLE GROUP

bloom. River banks. New York to South Carolina and westward. Often cultivated.

### Viper's Bugloss. Blue-weed. Blue Devil

*Èchium vulgare*.—Family, Borage. *Color*, blue at first, becoming red. Buds, pink. *Corolla*, 5-lobed, spreading, with red *stamens* protruding. *Flowers*, compactly panicled on the upper side of a curved branch. *Leaves*, coarse, hairy, linear to lance-shaped, sessile. *Stem*, 1 to 3 feet high. June to September.

A coarse and bristly plant, not without a certain prettiness in the blossoms, but along roadsides covered with dust, plebeian-looking. Dry soil, roadsides and fields. Common.

### Blue Vervain

*Verbena hastata*.—Family, Vervain. *Color*, violet blue. *Calyx*, 5-toothed, one tooth being shorter than the others. *Corolla*, tubular, with spreading border, 5-cleft. *Flowers*, in spikes, sessile, small, narrow, on erect, 4-sided *stems*, 3 to 7 feet high. *Leaves*, petioled, oblong to lance-shape, sharply pointed at apex, the lower often lobed or halberd-shaped, serrate with sharp teeth. June to September.

In low grounds, borders of swamps, moist fields and meadows in all the Eastern States and westward to New Mexico.

The vivid blue of this tall plant makes it a conspicuous fall flower. It would be pretty were the flowers all to blossom at once; but buds above, seeds below, a small circle of bloom between is its parsimonious habit.

The vervain (verbena) seems to have been connected with magic, acting as a charm against witches. Says Mr. Knight, in his biography of Shakespeare:

“Some of the children said that a horseshoe over the door, and vervain and dill, would preserve them, as they had been told, from the devices of sorcery.” (See illustration, p. 332.)

*V. angustifolia*.—*Color*, purple or blue. A low plant with slender stem, 1 to 2 feet high. *Leaves*, linear or lance-shape, tapering into short petioles, serrate. Spikes of *flowers* crowded, single, terminating the branches. Fruits quickly follow the flowers, overlapping one another. July and August.

Dry, sandy soil, Massachusetts to Florida and westward.

### European Vervain

*V. officinalis*.—*Color*, purplish. *Flowers*, small, with the 2-lipped corolla in long, thread-like spikes which at first are short,



BLUE VERVAIN (*Verbena hastata*)  
(See page 331)

## BLUE AND PURPLE GROUP

but grow to 4 or 5 inches in length. *Leaves*, the upper long, narrow, acute, sessile, entire; lower pinnately cleft into 3 lobes, which are much cut and toothed, with margined petioles. *Stem*, square, 1 to 3 feet high, much branched. June to September.

Often a weed in cultivated grounds; found also in old waste fields and along roadsides, from Maine to Florida, more common in the Middle States.

### False Pennyroyal

*Isánthus brachiátus*.—Family, Mint. *Color*, pale blue. *Calyx*, bell-shaped with 5 equal lobes. *Corolla*, small, about  $\frac{1}{4}$  inch long, with nearly equal, blunt, spreading lobes. *Stamens*, 4. *Flowers*, 1 to 3, on peduncles, in the leaf-axils. *Leaves*, entire, 3-nerved, narrow and long. *Plant* low, much branched, downy and clammy. July and August.

Dry, sterile soil, Vermont to Minnesota and southward.

### Blue Curls. Bastard Pennyroyal

*Trichostéma dichótórum*.—Family, Mint. *Color*, blue. *Calyx*, 2-cleft, the 3 upper teeth longer than the 2 lower. *Corolla*, tubular, 2-lipped, the lobes all linear. *Stamens*, with long, curved filaments which project far out of the flower. *Flowers*, pedicelled, 2 or 3 together, with bracts under the peduncles, making loose panicles. *Leaves*, lance-shaped to oblong, the lower petioled, entire. *Stem*, 4 to 8 inches high, clammy, viscid, glandular, with a not wholly agreeable fragrance. July to October.

Dry fields, almost a weed. By a twisting of the pedicels the flower becomes inverted. (See illustration, p. 334.)

*T. líneáre*.—*Color*, blue, and *flowers* like the last. *Leaves*, linear, sessile,  $\frac{1}{2}$  to 2 inches long. *Stem*, smooth, slender, branched above. Fruit of this and the preceding species 4 well-marked nutlets. July and August.

Near the coast, dry, sandy fields and pine barrens, Connecticut to Georgia and Louisiana.

### Mad-dog Skullcap

*Scutellária lateríflóra*.—Family, Mint. *Color*, blue. *Calyx*, bell-shaped, divided, the upper lip with a *hood*, a protuberance which makes the plant easily recognizable. Later this falls away, but the lower lip remains. *Corolla*, a curved tube, divided above into 2 lips, the upper arched and curved, the lower spreading. *Leaves*, ovate or lance-shaped, serrate with coarse teeth, short-petioled. *Stem*, 8 to 24 inches high, upright, branched. *Flowers*,



BLUE CURLS (*Trichostema dichotomum*)  
(See page 333)

## BLUE AND PURPLE GROUP

in axillary and sometimes one-sided racemes, terminating the branches. Delicate and pretty. July to September.

In wet grounds common in all the Eastern and Middle States. The common name indicates that it was once considered a cure for hydrophobia. (See illustration, p. 336.)

### Marsh Skullcap

*S. galericulata*.—Color, blue. Flowers, larger than the last, with much the same habit of growth. Corolla, with long, slender tube and a large lower lip. Leaves, with short petioles or none, lance-shape, serrate. June to August.

Same general habitat as the last, swamps and wet grounds, New England to New Jersey, in mountains to North Carolina, westward to Ohio and Nebraska.

### Hyssop Skullcap

*S. integrifolia*.—Color, blue. Calyx, bell-shape, 2-lipped, the upper lip with the hood-like swelling which marks this genus. Corolla, rather large, 2-lipped, the lips distinct, but nearly equal in length. Stems, whitish with minute down, 6 inches to 2 feet high, generally simple. Leaves, the upper short-petioled or sessile, thin, linear; the lower, roundish, long-petioled, slightly toothed. Bracts under the flowers, which grow in terminal long racemes or panicles. May to July.

Near the coast, in moist ground, fields, woods, and thickets, Massachusetts to Florida, westward to Texas.

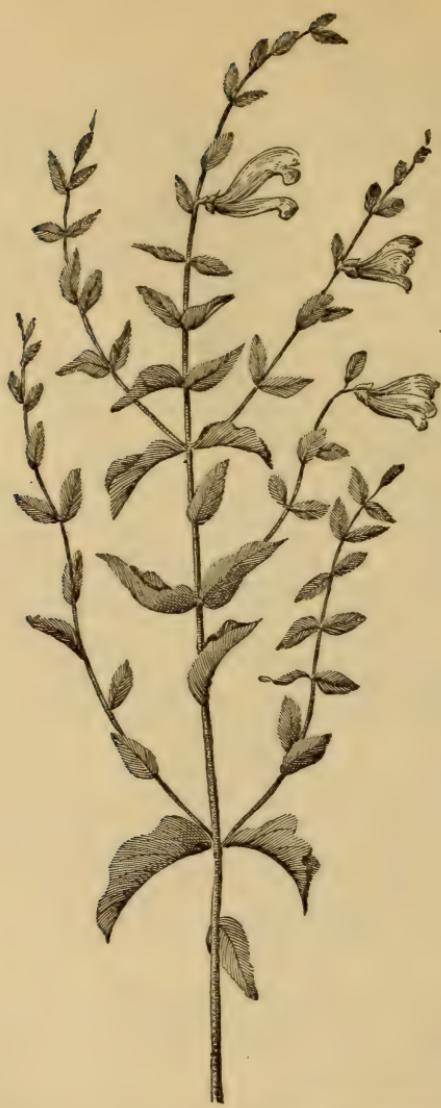
### Small Skullcap

*S. parvula*.—Color, violet. A small species, 3 to 12 inches high, with slender stem, somewhat branched, a tiny blue violet flower appearing in the axils of the upper leaves. Perennials from slender, tuberous rootstocks. Leaves, oval, ovate, or roundish below, linear above,  $\frac{1}{4}$  inch long. April to July.

Moist or sandy soil, Vermont to Tennessee and Texas.

*S. nervosa*.—Color, bluish purple. Leaves, thin, serrate, those below petioled, heart-shape, or roundish at base; upper, ovate to lance-shape, entire, all with prominent veins underneath. Flowers, single in the upper axils. Nutlets, winged, each raised on an enlargement of the receptacle. May to August.

Rich, moist woods, New York, south to North Carolina and westward to Missouri. Found 3,000 feet high in Virginia.



MAD-DOG SKULLCAP (*Scutellaria lateriflora*)  
(See page 333)

## BLUE AND PURPLE GROUP

### Giant Hyssop

*Agástache scrophulariaefòlia*.—Family, Mint. Color, purple. *Calyx*, bell-shape, 5-toothed. *Corolla*, 2-lipped, the upper lip 2-lobed, erect, the lower 3-lobed, spreading. *Flowers*, gathered in a close, large spike, 3 to 18 inches long, attended with bracts. *Stem*, 4-angled. *Leaves*, softly hairy underneath, acute, ovate or heart-shape, petioled. July to October.

New Hampshire to Wisconsin, southward to Kentucky and North Carolina. Strong-scented.

### Ground Ivy. Gill-over-the-ground

*Népeta hederacea*.—Family, Mint. Color, blue. *Calyx*, 5-toothed, small. *Corolla*, 2-lipped, the upper lip small, 2-cleft; the lower, broad, 3-cleft. *Leaves*, crenate, round or kidney-shape, petioled. *Flowers*, in clusters, in the axils. May to July.

A prostrate, trailing plant, often found bordering garden paths in damp, shady places. Near large towns or cities. A near relative of catnip.

### Self-heal. Heal-all. Carpenter-weed

*Prunélla vulgàris*.—Family, Mint. Color, violet or purplish blue. *Calyx* and *corolla*, tubular, 2-lipped. Filaments split above, the lower tooth bearing the anther. *Flowers*, in clusters of 3, sessile, all in a compact, terminal, clover-like head. Bract-like leaves grow with them. *Leaves*, petioled, long, narrow, entire or toothed, generally rough-hairy. June to September.

A plebeian-looking plant growing in pastures and beside roads. It is smart and cheery looking, although often sadly dusted and bedraggled. 6 inches high. Common. (See illustration, p. 338.)

### Common Hemp Nettle

*Galeópsis Tetràhit*.—Family, Mint. Color, purple. *Calyx*, with 5 equal teeth. *Corolla*, with upper lip arched, curved, not lobed; lower, 3-cleft, the middle inversely heart-shape. *Throat*, with 2 teeth in the folds. *Flowers*, in whorls in axils of the upper leaves. *Stem*, very hairy, swollen below its joints. *Leaves*, ovate, coarsely serrate. August and September.

Low, branching plant, common in waste places and dry fields.

### Dead Nettle

*Làmíum amplexicàule*.—Family, Mint. Color, purplish. *Calyx* and *corolla*, tubular. *Corolla*, small, 2-lipped, the lips quite open,



SELF-HEAL (*Prunella vulgaris*)  
(See page 337)

## BLUE AND PURPLE GROUP

upper rounded and concave, lower flat, hanging, with its small side-lobes purple-spotted. *Flowers*, in whorls in axils of the opposite leaves. *Leaves*, rounded, deeply toothed, those above clasping the stem, sessile; the lowest long-petioled. April to October.

In cultivated and waste grounds. Common.

### Motherwort

*Leonurus Cardiaca*.—Family, Mint. *Color*, pale purple. *Corolla*, 2-lipped, the upper lip bearded; lower in 3 divisions, spreading. *Flowers*, in close whorls in the axils of the upper leaves. *Leaves*, those below palmately cut, with long petioles, those near the flower 3-cleft into lance-shaped lobes, wedge-shape at base. *Stem*, erect, 2 to 5 feet high, branched, rather stout. June to September.

Common near dwellings and in waste places.

*L. sibiricus*.—*Color*, purplish. *Leaves*, long-petioled, 3-parted, the divisions again cut into lance-shaped lobes; lower leaves quite large, 6 inches across, entire or slightly toothed. *Stem*, stout, 2 to 6 feet high, with slender branches. May to September.

Found south of Pennsylvania and Delaware. Often a weed around dwellings and in waste places.

### Hedge Nettle

*Stachys hyssopifolia*.—Family, Mint. *Color*, light purple. *Calyx*, 5-toothed, bell-shape, rather hairy. *Corolla*, with a narrow, long tube and spreading border. *Flowers*, in clusters of 4 to 6 growing in the upper leaf-axils. *Stem*, slender, erect, 8 to 18 inches high, hairy along the joints. *Leaves*, long and narrow, thin, pointed at both ends, with short petioles or sessile. July to September.

In moist fields or wet, sandy soil, Massachusetts to Florida, west to Michigan.

### Woundwort

*S. palustris*.—*Color*, purplish, tending to pale red, the lip of the corolla spotted. *Flowers*, in rather crowded whorls, 6 to 10 in a whorl, in the upper axils, forming close, interrupted spikes. *Stem*, leafy, erect, simple, hairy along the angles, 1 to 4 feet high. *Leaves*, upper, sessile, shorter than the calyx, long, narrow; lower, short-petioled, broader, heart-shape at base, with roundish teeth. *Stem-leaves* rough-hairy. June to September.

Wet ground, along streams, common, as far south as North Carolina and westward to Illinois and Minnesota.

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*S. tenuifolia*.—*Color*, reddish purple. Much like the preceding, with flowers in upper leaf-axils. *Stem*, smooth, slender, branched, 1 to 2½ feet high. *Leaves*, thin, lance-shaped, toothed, with petioles, often obtuse or tending to heart-shape at base. June to August.

Low and moist fields, New York to Illinois, south to North Carolina and Louisiana. Found 4,000 feet high in North Carolina.

### Lyre-leaved Sage

*Sálvia lyráta*.—*Family*, Mint. *Color*, bluish purple. *Calyx*, 2-lipped, the upper lip 3-toothed, sometimes entire. *Corolla*, gaping, deeply cut into 2 lips, the upper straight, slightly notched or entire, the lower 3-lobed, spreading. *Stamens*, 2 perfect ones on short filaments, at whose summits a thread crosses, bearing at one extremity a single anther-cell ascending under the upper lip, and at the other an imperfect but pollen-bearing anther, descending. This separation of the anther-cells by a transverse filament is characteristic of sages. *Leaves*, from the root, deeply cut, lyre-shape, sometimes entire; on the stem, generally a single pair, small and narrow; near the flower, a few, bract-like. May and June.

Sandy, open woods and barrens, Connecticut to Illinois, south to Florida and Texas.

*S. officinális* is the common aromatic sage of the gardens, with purplish blue *flowers* in whorls about the stem. The name is derived from *salvus*, "in good health," from supposed curative properties. An old writer says: "It is good for the head and brain. It quickens the memory and senses. No man needs to doubt of the wholesomeness of sage."

### Wild Bergamot

*Monárdá fistulósa*.—*Family*, Mint. *Color*, purple or white dotted with purple. (See White Flowers, p. 121.)

### American Pennyroyal

*Hedeòma pulegióides*.—*Family*, Mint. *Color*, blue. *Calyx* and *corolla*, 2-lipped. The upper lip of corolla is notched; lower, 3-cleft. *Stamens*, 2. Low, erect *stems*, with a few flowers in whorls in the leaf-axils near the tops of the branches. It is rough, hairy, stiff, erect, growing plentifully in dry woods. 4 to 6 inches high. *Leaves*, small, petioled, somewhat toothed, ovate, strongly scented.

Dry fields and woods, New England southward and westward.

## BLUE AND PURPLE GROUP

### Blephilia

*Blephilia ciliata*.—Family, Mint. *Color*, lavender or pale blue. *Leaves*, green above, whitish and downy beneath, nearly sessile, ovate, narrowing at the base. Hairy, colored bracts under the calyx. *Calyx*, tubular, 2-lipped, the upper lip armed with 3 long, the lower with 2 shorter teeth. *Corolla*, with 2 about equal lips, hairy, the upper entire; the lower 3-divided, spreading, the middle lobe notched and narrower than the side lobes. *Stamens*, 2. Two feet or less high. *Flowers*, in terminal round heads and in whorls around the stem in the leaf-axils. Whole plant rough and hairy. June to August.

Dry soil, open places. From Massachusetts southward and westward.

### Wood Mint

*B. hirsuta*.—*Color*, pale purple with darker spots. *Flowers*, with tubular, 2-lipped calyx and corolla, in whorls around the stem and forming round, terminal heads. *Leaves*, with long petioles, ovate, rounded or heart-shape at base, pointed; floral bracts linear, shorter than the calyx. *Calyx*, with long hairs, and whole plant rough-hairy. June to September.

Deep, cool woods and shaded places throughout the Atlantic States.

### Summer Savory

*Satureja hortensis*.—Family, Mint. This is the mint familiar to housekeepers, used for flavorings, which has escaped from our gardens and become wild in some places. *Flowers*, purple, clustered in a spike, without bracts, with narrow, entire, small *leaves*.

### Basil

*S. vulgaris*.—*Color*, pink lavender. A very hairy species, with erect, slender stem, 1 to 2 feet high. *Flowers*, like the preceding, in dense, axillary and roundish, terminal clusters. *Leaves*, with short petioles, ovate, pointed, somewhat toothed. June to October.

Woods and thickets, New England to Virginia and westward.

### Wild Marjoram

*Origanum vulgare*.—Family, Mint. *Color*, purplish. *Leaves*, petioled, roundish, entire, sprinkled underneath with resinous dots. *Calyx*, 5-toothed. *Corolla*, 2-lipped, 4-lobed, the upper lip broad and slightly notched. *Stamens*, 4, standing well out from the flower. The bracts and stem of this plant often have a purplish tinge. July and August.

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The small flowers are arranged in terminal, close spikes with the colored bracts interspersed. The whole plant fragrant and with a pleasant taste.

Dry fields and roadsides, New England to Pennsylvania.

### Mountain Mint. Basil

*Pycnanthemum virginianum*.—Family, Mint. *Color*, whitish or light purple, dotted with darker purple. *Leaves*, long, narrow, nearly sessile, clustered thickly in the axils; those nearest the flowers whitish, with a soft down. July and August.

There are several species of mountain mint, found oftener below the hills than upon them. Most of them have small flowers with a 5-toothed calyx and 2-lipped corolla crowded in button-like heads, downy, whorled around the stem and terminal in close cymes. With the heads are short, stiff, pointed bracts. It is not easy always to distinguish the species. (See illustration, p. 343.)

*P. flexuosum* often grows with the last. *Color*, purple. *Leaves*, linear, firm. *Calyx-teeth*, awn-pointed. Heads of flowers terminating the branches.

Dry ground throughout the Atlantic States.

*P. muticum* has broader leaves than the last, with rounded or heart-shaped bases, and few, rather large heads of purplish flowers in dense clusters, corymbose. Whole plant downy.

New Hampshire to Missouri and southward.

*P. Torrei*.—*Color*, purple. *Heads of flowers*, roundish, terminal, dense. Green throughout, and not, like the last, whitish. *Leaves*, thin, petioled, long, narrow, pointed at both ends.

Dry soil, fields and woods, New York to Georgia.

*P. incanum*.—*Color*, purple. *Flowers*, in large, open cymes or loose clusters, terminal and in the upper axils. *Leaves*, ovate, those above covered with whitish down on both sides, with short petioles, broadly toothed.

Open woods and dry hills, Virginia to Georgia. All these species of the mountain mint grow in dry soil, in fields or woods, and are common in the Atlantic States, north and south.

### Creeping Thyme

*Thymus Serpyllum*.—Family, Mint. *Color*, purplish. *Leaves*, very small, ovate, with fringing hairs at the base. *Flowers*, in



MOUNTAIN MINT. BASIL. (*Pycnanthemum virginianum*)  
(See page 342)

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whorls of 6, without bracts, but with a pair of floral leaves forming a long, slender spike. A much-branched, low, slender plant, forming dense tufts from one root.

In old fields and dry soil. Escaped from gardens. It was used for seasoning by the old Romans. Thyme and honey were found on Mount Hymettus. Honey made from this plant was greatly liked.

### Dittany

*Cunila origanoides*.—Family, Mint. Color, white or purplish. (See White Flowers, p. 123.)

### Spearmint

*Mentha spicata*.—Family, Mint. Color, pale blue. Leaves, oblong, serrate, wrinkled, short-petioled or sessile. Flower-bracts linear, rather large, under the separate clusters of flowers, which form interrupted terminal spikes. Stem, erect, 1 to 1½ feet high. Perennial by leafy runners.

Common in all wet places. (See illustration, p. 345.)

### Peppermint

*M. piperita*.—Color, purple. Calyx, streaked with purple, hairy. Leaves, petioled, dark green, oblong to lance-shaped, purple-veined. Flowers, in whorls of dense continuous or interrupted spikes, terminal, or sometimes axillary. July to September.

In wet soil, along brooks. The peppermint of confectionery and medicine.

### Water Mint

*M. aquatica*.—A somewhat hairy species with purplish flowers clustered in the axils or terminal. August to October.

Wet places, somewhat rare.

*M. arvensis*.—Color, white, pink or violet. (See White Flowers, p. 123.)

### Horse Nettle

*Solanum carolinense*.—Family, Nightshade. Color, violet or rarely white. Calyx, 5-parted. Corolla, wheel-shaped, 5-parted. Fruit, a 2-celled berry. Stout, erect perennials, with many stiff, yellowish prickles upon the roughly hairy stem. Leaves, toothed, oblong or ovate, lobed or pinnately cut, 2 to 6 inches long. May to September.

Dry ground and waste places, Connecticut to Florida and westward.



SPEARMINT (*Mentha spicata*)  
(See page 344)

## HARPER'S GUIDE TO WILD FLOWERS

### Snapdragon

*Antirrhinum majus*.—Family, Figwort. *Color*, white, blue, or purple, sometimes variegated with crimson. *Calyx*, 5-parted, the lobes short. *Corolla*, tubular, the tube swollen in front, 2-lipped, the upper lip divided into 2 short lobes, the lower 3-divided, spreading at the tip, meeting below and closing the throat. 4 stamens, in pairs, 2 shorter, 2 longer. *Leaves*, narrowly oblong, entire.

A perennial with leaves and stem glandular, somewhat sticky. Escaped from cultivation and found wild in many places. It would seem to be a discouraging flower for insects to extract nectar from, but as a bee stands upon the lower lip, it drops down and opens the throat which would remain closed to a smaller insect. (See White Flowers, p. 125.)

*A. Orontium*.—*Color*, white or purple. (See White Flowers, p. 125.)

### Blue Toadflax

*Linaria canadensis*.—Family, Figwort. *Color*, light blue. *Calyx*, 5-parted. *Corolla*, 2-lipped, with a small, thread-like spur growing from the lower lip. *Upper leaves*, bract-like; lower, linear, entire; root-leaves somewhat cut into linear divisions. *Flowers*,



BLUE TOADFLAX (*Linaria canadensis*)

in terminal racemes on slender stems, unbranched, 1 to 2 feet high. A rosette of dissected leaves is often found growing at the base of the stem. May to September.

## BLUE AND PURPLE GROUP

A weed in cultivated grounds, in sandy, dry soil, rather persistent. Atlantic and Gulf States.

### Figwort

*Scrophularia marilandica* (a reputed remedy for scrofula).—*Family*, Figwort. *Color*, a brownish purple or chocolate. *Leaves*, opposite, deeply serrate, ovate or oblong, rounded or heart-shaped at base, pointed at apex. *Calyx*, deeply 5-divided. *Corolla*, rounded, tubular, with 5 lobes, the lower spreading, the two upper longer than the others and erect. *Stamens*, 5, with anthers lying across the filaments and running together into a ring. A rudiment of the fifth stamen may be seen. *Stem*, smooth, 4-sided, 3 or 4 feet high, with small, insignificant flowers terminating the branches. July to September.

This herb gives the name to a large and important family of plants, and, curiously, has not the markedly 2-lipped corolla which distinguishes most of the figworts. Open, rich, moist woods. Massachusetts to South Carolina and westward.

### Water Hyssop

*Bacopa Monnière*.—*Family*, Figwort. *Color*, blue. *Leaves*, clasping the stem, egg-shape, opposite, entire, giving forth a pleasant fragrance when crushed. *Calyx*, 5-parted, the upper sepal heart-shape. *Corolla*, 2-lipped, the upper lip notched, the under 3-lobed. *Stamens*, 4. *Style*, 2-parted at the top. Summer.

Low and creeping, rather fleshy plants, with single small flowers in the leaf-axils. Growing around ponds in pine barrens in New Jersey to Louisiana.

### Beard-tongue

*Penstemon hirsutus* (name means "fifth stamen").—*Family*, Figwort. *Color*, lilac or whitish. *Corolla*, tubular, 2-lipped, the upper lip 2-divided, the lower 3. There are 4 fertile *stamens*; the fifth, sterile, with a profusely bearded filament, gives the flower its name. *Flowers*, large, crowded in a dense panicle. *Stem*, 2 to 3 feet high, covered with a fine, whitish bloom. *Leaves*, lance-shape or ovate, those below somewhat toothed. May to July.

Dry or rocky, sterile soil, Maine to Georgia and westward.

### Monkey Flower

*Mimulus ringens* (diminutive of *mimus*, a buffoon, from the "grinning corolla").—*Family*, Figwort. *Color*, lilac. *Calyx*, with 5 angles and teeth. *Corolla*, tubular, 2-lipped, upper lip 2-lobed, lower 3-divided; of the snapdragon order, slightly open.

## HARPER'S GUIDE TO WILD FLOWERS

The *flowers* grow near the upper part of the stem, in the leaf-axils hanging from long, slender peduncles. The *stem* is sharply 4-angled, 2 or 3 feet high, smooth. *Leaves*, opposite, meeting and clasping the stem, long and narrow or oblong, pointed, toothed. July to September.

Wet grounds, banks of streams, etc. In all the Eastern States. (See illustration, p. 349.)

### Winged Monkey Flower

*M. alatus*.—*Color*, lilac. Often growing beside the last species is the winged monkey flower, having a sharply angled or winged stem, petioled leaves, and flowers on shorter peduncles.

In the same delicate shade of lilac and in general habit, the two species resemble each other.

### False Pimpernel

*Illysanthes dubia*.—*Family*, Figwort. *Color*, light purple. *Flower*, 2-lipped or "labiate," the upper lip cut into 2 divisions, the lower into 3. Flowers in racemes, terminal, or from the leaf-axils, on long, slender pedicels. *Leaves*, small, numerous, roundish, sessile, some clasping. A plant 6 or 8 inches high, much branched. All summer.

The name means "mud-flower," and reveals its habitat in wet and muddy places. Common in all our Eastern States.

### Water Speedwell

*Verónica Anagallis-aquática*.—*Family*, Figwort. *Color*, pale blue striped with purple. *Calyx*, 4-parted. *Corolla*, 4-parted, spreading, wheel-shaped. *Stamens*, 2. The delicate flowers grow in spikes from the axils of opposite leaves, thus making the flowers in pairs. *Leaves*, entire, serrate, acute, narrow, clasping at base. *Stem*, creeping and rooting along the ground, the tip and flowering branches erect. June to August.

In wet soil, along brooks and ditches. Massachusetts southward.

### American Brooklime

*V. americana*.—*Color*, blue. This differs from the last in having *leaves* with short petioles, oblong, sharply serrate. *Flowers*, in peduncled racemes borne in nearly all the axils. April to September.

In wet places, as swamps, from Pennsylvania northward across the continent.



MONKEY FLOWER (*Mimulus ringens*)

(See page 347)

## HARPER'S GUIDE TO WILD FLOWERS

### Marsh Speedwell

*V. scutellata*.—*Color*, pale blue. *Leaves*, long, narrow, sessile, acute. *Flowers*, on slender pedicels, in racemes, single or in pairs, the panicles often bent in a zigzag fashion. 6 to 12 inches high. May to August.

Swamps and wet grounds, roadsides, and along brooks, New England to New York and westward.

### Common Speedwell

*V. officinalis*.—*Color*, blue. *Flowers*, in axillary, opposite racemes, very small, much crowded, with short pedicels. *Leaves*, with short petioles, opposite, oblong, serrate. *Plant*, softly hairy. *Stem*, weak, prostrate, creeping. May to August.

Dry, open woods and hills, New England southward and westward.

### Thyme-leaved Speedwell

*V. serpyllifolia*.—*Color*, whitish or light blue, with dark blue lines. *Flowers*, in loose racemes, with pedicels. *Leaves*, the lower petioled, roundish, passing gradually into narrow bracts near the flowers. Small, often dooryard weeds, growing flat and mat-like upon the ground, with the opposite flowering branches 3 or 4 inches long. *Stem*, creeping, smooth. May to July.

Lawns and grassy places in all our Eastern States.

### Chaff-seed

*Schwalbea americana*.—*Family*, Figwort. *Color*, dull, yellowish purple. *Calyx*, tubular, 5-toothed, with a pair of bracts at its base. *Corolla*, 2-lipped, the upper lip entire, the lower 3-lobed, 2-plaited. *Flowers*, large, irregular, nearly or quite sessile, forming a terminal, loose spike. *Stem*, straight, slender, 1 to 2 feet high with few branches, glandular, and softly hairy. *Leaves*, entire, oblong to ovate, pointed at both ends, sessile, passing into linear bracts above. May to July.

In wet, sandy soil, near the coast, from Massachusetts to Louisiana.

### Purple Bladderwort

*Utricularia purpurea*.—*Family*, Figwort. *Color*, violet purple. *Flower*, of the Figwort type, 2-lipped, the lower lip 3-lobed. Of these the two side lobes are swollen and sac-like. *Flowers*, 1 to 4 on a leafless scape which rises out of shallow water from 1 to 6 inches high. Branches float on the surface, with petioled leaves cut into hair-like divisions, furnished with many bladders. May to August.

In ponds and streams, near the coast, from Maine to Florida.

## BLUE AND PURPLE GROUP

*U. resupinata*.—*Color*, purple. This is a species with showy flowers, single, borne upon the summit of a scape from 2 to 7 inches long. The plant roots in the mud and sends up a scape springing from shoots 1 or 2 inches above the soil. Leaves and bladders small. August.

In borders of ponds and sandy bogs, Maine to Florida. Rare.

### Beech-drops. Cancer-root

*Epifagus virginiana*.—*Family*, Broom-rape. *Color* of both flowers and stem, a purplish or brownish tint hard to describe. No green in the plant shows it to be a parasite. This one is parasitic on beech tree roots. No leaves, but brownish scales scattered on the stem. *Flowers*, in a spike terminating the branches, the upper ones sterile, with a 4-toothed, tubular corolla; the lower cleistogamous, fertile, the corolla not expanding, but remaining like a hood on the tip of the ovary. *Calyx*, 5-toothed. August to October.

New England to Florida, westward to Michigan and Louisiana. I have found this singular plant in chestnut woods, where apparently no beeches grew.

### One-flowered Cancer-root

*Orobanche uniflora*.—*Family*, Broom-rape. *Color*, purplish. *Calyx*, tubular, sharply 5-toothed. *Corolla*, a curved tube passing into a 5-lobed limb or border. *Stem*, short, 1 inch long, underground, with a few scales instead of leaves. *Flower-scapes*, 3 to 8 inches high, 1 to 4 arising from the root, leafless, with a single flower at the tip. No leaves. April to July.

Whole plant a brownish purple, parasitic on the roots of various herbs, in damp woods and thickets. Common. Looking into the flower one sees 2 folds bearded with yellow, not without some pretensions to prettiness.

### Hairy Bedstraw

*Gàlium pilosum*.—*Family*, Madder. *Color*, purplish. *Calyx*, tubular. *Corolla*, with a short tube and spreading border of 4 divisions. *Stamens*, 4. *Flowers*, in cymes, the peduncles twice or thrice-forked. *Leaves*, in whorls of fours, ovate, acute, dotted, with stem quite hairy. *Fruit*, bur-like. June to August.

Dry, sandy soil, Massachusetts to Florida and westward to Texas.

### Bluets. Innocence

*Houstonia caerulea*.—*Family*, Madder. *Color*, bluish white. (See White Flowers, p. 129.)

## HARPER'S GUIDE TO WILD FLOWERS

### Feverwort. Horse Gentian. Wild Coffee

*Triosteum perfoliatum*.—Family, Honeysuckle. *Color*, brownish purple. *Fruit*, orange-red. *Calyx-lobes*, 5, long, narrow. *Corolla*, tubular, with 5 unequal lobes. *Stamens*, 5, joined to the corolla-tube. *Leaves*, opposite, downy beneath, entire, broad, narrowed below to a broad base, which clasps the stem and almost unites with the opposite leaf, hence the specific name. *Flowers*, single or in clusters, sessile in the axils. *Stem*, straight, stout, 2 to 4 feet high, finely hairy. May to July.

The orange-colored fruit of this plant is a drupe, composed of 2 or 3 nutlets, surrounded by fleshy cells within the outer hard shell.

### Venus's Looking-glass

*Specularia perfoliata*.—Family, Bluebell. *Color*, blue or violet. *Calyx*, 3 to 5-lobed. *Corolla*, tubular, with 5-lobed border, wheel-shaped. *Flowers*, single, or in twos and threes in the upper leaf-axils. *Stem*, 3 to 20 inches high, simple, weak, with milky juice. *Fruit*, a 3-sided capsule. *Leaves*, round, with heart-shaped base clasping the stem and surrounding it, sessile, often crenate. Within these shell-like leaves the lower flowers, 2 or 3 together, small, cleistogamous, are pollinated in the bud and never expand. The upper and later ones expand into a wheel-shaped flower. May to September.

Sterile, open ground or dry woods, Maine to Florida and Mexico.

### Harebell. Bluebell

*Campánula rotundifolia*.—Family, Bluebell. *Color*, blue, or sometimes with a purplish tint. *Calyx*, 5-cleft. *Corolla*, bell-shaped, 5-lobed, nearly an inch long. *Stamens*, 5. *Stigmas*, 3. *Fruit*, a capsule, 3-celled, nodding. *Leaves*, the earlier ones from the root, roundish, heart-shape or ovate, dying soon. Later ones on the stem, narrow, lance-shape, numerous. Name most inappropriate, since the round leaves are seldom seen. Varied in height and foliage. A perennial, with slender rootstocks, simple or branched stems, 6 inches to 3 feet high. June to September.

One of our loveliest blue flowers, which, in its favorite haunts of rocky woods or wet meadows, it is a real pleasure to come across. It may also hang its dainty bells from a lakeside, nestling under tall ferns and grass. It may be found in the rock fissures which attend the Hudson River, and in all the country, including the Rocky Mountains and Sierras. This seems to be the bluebell of Scotland.



Bluebell—Harebell *(Campanula rotundifolia)*



## BLUE AND PURPLE GROUP

### Bellflower

*C. ranunculoides*.—*Color*, purple. *Leaves*, bract-like above, the lower with long petioles, heart-shape. *Flowers*, nodding, in racemes or single in the axils of the upper bracts, pedicelled. July and August.

A rather stiff plant, escaped from cultivation in country gardens, now found along roadsides and in thickets. At the base of the capsule, small pores are found through which the seeds are set free.

### Marsh Bellflower

*C. aparinoides*.—*Color*, pale blue or white. *Corolla*, twice the length of the calyx, but small, less than  $\frac{1}{2}$  inch long. *Stamens*, 5. *Leaves*, long, narrow, small, rough along the edges and midrib. June to August.

The little bells of this plant must be sought for. Look among the leaves around a mossy, wet stump, and you may find a weak, triangular stem about 20 inches long, with flowers here and there on slender pedicels. By means of tiny hooks along the angles of the stem the plant is able to raise itself and keep from being utterly smothered by the stronger growths around it. Maine to Nebraska, south to Georgia and Kentucky.

### Great Lobelia

*Lobelia siphilitica*.—*Family*, Lobelia. *Color*, light blue. *Calyx-tube*, short, 5-cleft. *Corolla*, bell-shape, longer than the calyx-tube, but split down on the upper side, slightly 2-lipped; upper lip 2, lower 3-lobed, 1 inch long, showy. *Leaves*, thin, numerous, ovate or lance-shape, irregularly serrate. *Flowers*, pedicelled, in a dense raceme, with leafy bracts. July to October.

The blue of this lobelia is rather pale, fading sometimes to nearly white. It is a hairy, tall-stemmed plant, 3 feet high, with a long, leafy panicle of showy flowers. A near relative of the cardinal-flower. As the pistil matures after the anthers have discharged their pollen, this is a flower specially prepared for cross-pollination.

In low, damp grounds, Maine to Minnesota, south to Georgia, Louisiana, and Kansas. (See illustration, p. 354.)

### Indian Tobacco

*L. inflata*.—*Color*, purplish blue. Flower much like the last, but smaller. *Calyx*, roundish, with long, awl-shaped divisions



GREAT LOBELIA (*Lobelia siphilitica*)  
(See page 353)

## BLUE AND PURPLE GROUP

remaining attached to the ovary, making a much inflated capsule in fruit. *Flowers*, in loose racemes, all with leafy bracts, the upper very narrow. *Leaves*, thin, sessile, ovate to oblong, with short petioles. *Plant*, 10 to 36 inches in height, hairy, much branched, with an acrid juice. July to November.

A poisonous plant, formerly used in the Thomsonian school of medicine as an emetic. Dry soil, fields and thickets. Common.

### Spiked Lobelia

*L. spicata*.—*Color*, light blue. *Flowers*, small, in long, thin spikes. *Stem*, leafy, unbranched, 1 to 4 feet high, slender. *Leaves*, at the root, broad, obovate or tapering to short petioles; those above reduced to small bracts. June to August.

Damp, gravelly, or dry soil, in meadows. A smaller form is found in swamps. Over all the Eastern States. Found 2,500 feet high in Virginia.

### Water Lobelia

*L. Dortmanna*.—*Color*, purplish blue. *Leaves*, fleshy, all clustered at the root, submerged, hollow, obtuse, with a partition through the middle. *Roots*, white, fibrous. *Flowers*, in a loose, terminal raceme, few, with pedicels. *Scape*, thickish, 6 to 18 inches high. July to September.

An aquatic, in ponds, near the borders, often wholly immersed. New Jersey and Pennsylvania northward.

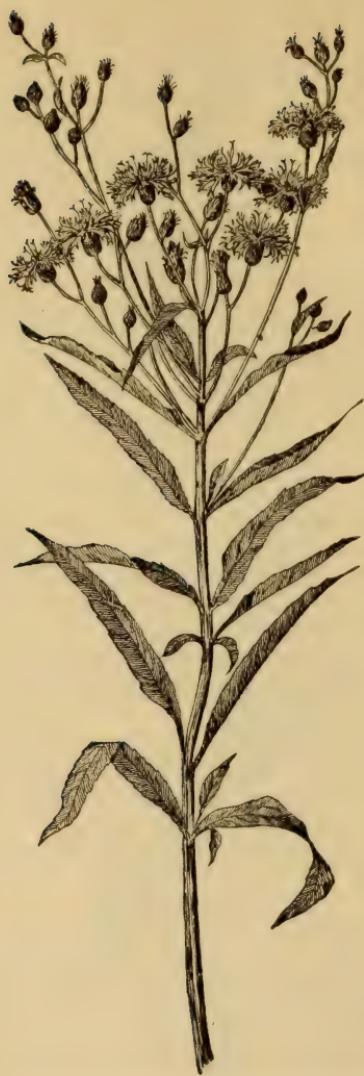
*L. Cânbyi*.—*Color*, deep blue. *Flowers*, on pedicels, in loose racemes, with linear bracts. *Leaves*, linear, very narrow above. *Stem*, erect, branched, 2 to 3 feet high. *Corolla*, bearded in the tube. *Calyx*, with long, thread-like teeth.

Swamps and wet grounds, New Jersey to North Carolina.

### Ironweed

*Vernonia noveboracensis*.—*Family*, Composite. *Color*, a rich purple. *Corollas*, all tubular. *Flowers*, in dense, thistle-like heads, growing in irregular cymes. *Involucro*, composed of purplish scales. 4 to 8 feet high. *Leaves*, long, narrow, alternate, acute, rough, slightly toothed, 3 to 10 inches long. *Heads*, 20 to 40-flowered, all peduncled. July to September.

In low meadows, moist soil, Maine to Virginia and westward, near the coast. A tall, showy, common plant, vying with Joe Pyeweed in making the meadows bright with rich,



IRONWEED (*Vernonia noveboracensis*)  
(See page 355)

## BLUE AND PURPLE GROUP

autumnal color. Other species are found in the prairies west and south of New York. (See illustration, p. 356.)

### Blazing Star. Button Snakeroot

*Liatris spicata*.—*Family*, Composite. *Color*, rose purple. *Corollas*, tubular, no rays. *Heads of flowers*, large, crowded on the upper part of the very leafy stems. *Leaves*, linear, rigid, upright, the lower 3 to 5-nerved. August to October.

A rough, bristling plant, 2 to 5 feet high, found along roadsides, in moist ground, from Massachusetts to Minnesota and southward. Very handsome, regular flowers of striking color. (See illustration, p. 358.)

### Large Button Snakeroot

*L. scariosa*.—*Color*, purple. This differs from the last but little, being of a variable type. *Leaves*, stiff, narrow, the lowest slightly broader, petioled, the upper growing smaller until bract-like. *Flowers*, in round heads, under which the bristling scales of the involucre are very prominent, their tips sometimes purplish. 2 to 5 feet high, with same range as the preceding. Late summer.

Dry, sandy soil, Maine to Nebraska and southward.

### Purple and Blue Asters

These can be distinguished from each other mainly by their leaves, stems, and places of growth. They appear in late summer and bloom into September or October.

### Showy Aster

*Aster spectabilis*.—*Family*, Composite. *Color*, bright purple. *Disk*, small, bright yellow. *Leaves*, the lower, serrate, broad in the middle, pointed; the upper, oblong to lance-shape, generally entire; all tapering into margined petioles. *Bracts* of the *involucre* tipped with purple, recurved, glandular, sticky. *Flowers*, few or single, on the upper branches. *Stem*, thick and rough. August to October.

Near the coast, sandy soil, Massachusetts to Delaware and North Carolina.

### Low, Rough Aster

*A. radula*.—*Color*, pale violet. *Leaves*, rough above, smooth beneath, oblong to lance-shape, sessile, acute, serrate, distinctly pinnately veined, 2 to 3 inches long. *Stem*, simple or branched near the summit, very leafy, with flowers in corymbs, generally



BLAZING STAR (*Liatris spicata*)

(See page 357)

## BLUE AND PURPLE GROUP

slightly hairy. *Bracts*, bell-shape, fringed at the tips. July to September.

Swamps, bogs, and low, moist woods. New England to Delaware and Pennsylvania.

### New England Aster

*A. novae-angliae*.—*Color*, violet purple, often pale. *Leaves*, 2 to 5 inches long, thin, entire, clasping the stem with heart-shaped bases. *Stem*, hairy, stout, much branched above, thickly leaved, 2 to 8 feet high, with large heads of showy *flowers* clustered at the ends of stem and branches. *Rays*, long, narrow, numerous, often drooping.

Moist ground, in fields and bordering swamps, from Maine to Quebec, southward to South Carolina, Missouri, and Kansas. One of the finest of our asters, cultivated in many gardens for the beauty of its brightly colored flowers.

*A. cóncolor*.—Showy, dark violet rays in *heads* which make a simple or compound, straight, narrow raceme. *Leaves*, soft and silky, grayish on both sides, oblong, 1 inch long, crowded and pressed close against the stem, the upper ones small bracts. *Stem*, 2 or 3 feet high, wand-like, unbranched below the flowers.

Sandy soil, Massachusetts southward, near the coast.

### Late Purple Aster

*A. pátens*.—*Color*, deep blue purple. *Leaves*, rough-hairy, oblong-lanceolate or ovate, with deeply heart-shaped bases, clasping and almost surrounding the stem, pointed, entire, small, the longest 1 to 3 inches; leaves on the branchlets reduced to scales. *Flowers*, single, terminating upper branches. *Disk*, small, yellowish green. *Rays*, long, with a backward curve. *Stem*, 1 to 3 feet high. August to October.

One of our prettiest blue asters, growing in dry ground, along roadsides and in open places. Massachusetts to Florida and westward.

### Wavy-leaf Aster

*A. undulátus*.—*Color* of the 8 to 15 rays surrounding each head of flowers, a pale blue. *Leaves*, wavy, somewhat toothed, the lowest 2 to 5 inches long, on margined petioles with heart-shaped bases; those higher up, petioled, the petioles much swollen and clasping the stem; the upper sessile, clasping; those on branches, very small. *Stem*, stiff, stout, 1 to 3 feet high, branched near the

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top. *Flowers*, medium-sized, panicled or racemose on the spreading branches. September to November.

Common East and South in dry woods, copses, and fields.

### Heart-leaved Aster. Common Blue Wood Aster

*A. cordifolius*.—*Color*, pale blue; the disk sometimes reddish or purplish. *Leaves*, thin, petioled, strongly heart-shaped at base, 2 to 5 inches long, sparsely hairy on the surface and along the veins, the lower petioles fringed with short hairs. *Bracts* of the *involucrum* tipped with green points. *Stem*, smooth, much branched, so as to seem bushy, 1 to 5 feet high. *Flowers*, small, crowded in panicles. August to October.

Woods and thickets in all the Eastern States. There are many varieties of this aster, depending upon slight differences in stem and leaves.

### Smooth Aster

*A. laevigatus*.—*Color*, blue violet. *Leaves*, oblong, tapering, rough-margined, those below on winged petioles, those above sessile, with heart-shaped bases, strongly clasping the stem; those on the flowering branches narrowed to bracts. *Heads of flowers*, crowded in a close panicle. *Stem*, stout, smooth, 2 to 4 feet high. August to October.

Dry soil, Maine to Michigan and southward. One of our most beautifully colored asters, found in woods or along roadsides.

### Bushy Aster

*A. dumosus*.—*Color* of rays, pale purple or blue. *Leaves*, long, narrow, entire, acute, with rough margins; the upper, small, crowded, sessile, often turned back. *Heads*, small, panicled, often a single one at the end of the branch. August to October.

Common in sandy soil, along paths and roadsides, in fields, varying in color to a very pale violet or white. From Maine to Michigan and southward. A pretty, cheerful little aster, often covered with dust along the highways, but bravely putting out its blue flowers. (See illustration, p. 361.)

*A. lateriflorus*.—*Color*, white or light purple. (See White Flowers, p. 136.)

*A. paniculatus*.—*Color*, white or pale violet. (See White Flowers, p. 136.)

### Rush Aster

*A. junceus*.—*Color*, pale violet, sometimes reddish or white. *Leaves*, linear, very narrow, and 3 to 6 inches long, entire or a



BUSHY ASTER (*Aster dumosus*)

(See page 360)

## HARPER'S GUIDE TO WILD FLOWERS

few teeth on the lower, rough along margins, sessile, often heart-shaped at base and clasping the stem, 1-nerved. *Stem*, slender, simple, or with a few branches, 1 to 3 feet high. *Heads of flowers*, of medium size, in panicles, terminating the upper branches. June to September.

A graceful aster, found in wet soil, as swamps and bogs, from New Jersey and Ohio northward. One of our earliest.

### New York Aster

*A. novi-belgii*.—*Color*, bright to pale violet blue. *Leaves*, lance-shaped, acute, entire, or some finely and distinctly toothed, firm, narrowed at base, the upper sessile and clasping, the lower petioled, 2 to 5 inches long. *Stem*, slender, leafy, branched, 1 to 3 feet high. *Heads of flowers*, numerous, in flattish panicles. *Rays* many. Disk bright yellow. August to October.

Swamps near the coast, Maine to Georgia. One of our commonest asters, late-flowering. There are many varieties of this aster. One, *A. litoreus*, is low, stiff, almost prickly, with shorter and broader leaves, found only near the coast.

### Salt Marsh Aster

*A. tenuifolius*.—*Color*, pale purple, nearly white. *Leaves*, narrowly linear, somewhat fleshy, entire, pointed, sessile, almost clasping the stem, the lowest 2 to 6 inches long. *Stem*, forked above, zigzag when old and dry, loosely branched, 1 to 2 feet high. *Heads of flowers*, large, on the tips of upper branches. *Rays*, long, numerous, drooping. August to October.

This crooked-stemmed aster is common in salt marshes, low growing, with showy flowers. Massachusetts to Florida, near the coast.

*A. subulatus*.—*Color*, purplish. *Rays*, in 2 rows, short, not longer than the disk. *Flowers*, small, bell-shape, in panicles. *Leaves*, long and very narrow, flat, entire, with square, sessile bases; those on the branches small, awl-shaped. *Stem*, rather thick, 1 to 6 feet high. August to November.

Common in salt marshes from New Hampshire to Florida. (See illustration, p. 363.)

### Bog Aster

*A. nemoralis*.—*Color*, light violet purple, often with a tinge of pink. *Rays*, long, and *flower* from 1 to 1½ inches broad, the heads solitary or a few in flat clusters. *Leaves*, small, lance-shaped, generally toothed, sessile, with margins turned back.



ASTER (*Aster subulatus*)

(See page 362)

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*Stem*, roughish, simple, or branched near the top, very leafy, 6 to 24 inches high. July to September.

Bogs near the coast, from New York and New Jersey northward.

### Purple-stem Aster

*A. puniceus*.—*Color* of long rays, lilac blue to paler, almost white. *Heads*, 1 to 1½ inches broad, showy, with short pedicels, numerous, in panicles or corymbs. *Leaves*, broad in the middle, lance-shape, pointed, with eared bases, clasping the stem, rough above and on the midrib beneath, coarsely toothed, 3 to 6 inches long. *Stem*, tall and stout, rough-hairy, with red or purple stripes upon it, 3 to 8 feet high. July to November.

A common, handsome species, recognized by its reddish stem. It abounds in low thickets and swamps, where it holds its own with tall shrubs, and spreads its rich panicle of blossoms, coloring the autumn landscape. New England to Michigan, Ohio, and North Carolina. (See illustration, p. 365.)

### Slender or Tuber Aster

*A. gracilis*.—*Color* of the 9 to 15 rays, violet. *Stem*, slender, low, 1 to 1½ feet high, slightly rough, branched above, bearing numerous heads of flowers. *Leaves*, small, roughish, those below oval, pointed, with long, slender petioles; those above, linear, small, sessile, slightly clasping. July to September.

In dry, sandy soil, as the pine barrens of New Jersey, south to Tennessee and Kentucky.

### Crooked-stem Aster

*A. prenanthoides*.—*Color*, violet. *Rays*, 20 to 30, narrow, drooping, the heads about 1 inch broad, with small disk. *Leaves*, smooth underneath, rough above, ovate to lance-shape, broad and toothed in the middle, narrowed near the base, then suddenly spreading into an eared base which clasps the stem, 3 to 6 inches long. *Stem*, hairy in lines, crooked, branched above, 1 to 2 feet high. August to October.

Wet soil, woods and borders of streams, New England to Virginia, Kentucky, and westward.

### Fleabane. Robin's Plantain

*Erigeron pulchellus*.—*Family*, Composite. *Color*, light purple. *Heads of flowers*, with 1 or 2 rows of long narrow rays, all of which are pistillate, on slender peduncles. *Leaves*, those on stem sessile, scattered, pointed, rough on margins, entire, partly clasping, oblong to lance-shape; those at the root, tufted, rough,



PURPLE-STEM ASTER (*Aster puniceus*)  
(See page 364)

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obtuse at apex, on short, margined petioles, 1 to 3 inches long. Perennials by means of offshoots or runners sent up from the root. *Stem*, slender, simple, 1 to 2 feet high. April to June.

On hills, in orchards, pastures, dry fields; rather local, but found from Maine to Minnesota and southward. A pretty name for this daisy-like composite is blue spring daisy, only it is not blue, but distinctly violet in color.

### Burdock. Clotbur

*Árctium Láppa*. — *Family*, Composite. *Color*, purplish crimson. *Leaves*, on furrowed petioles, thin, broadly ovate, whitish beneath, somewhat heart - shape at base, pointed at apex, the lower sometimes 18 inches long. *Heads of flowers*, clustered or single, bristly from the bracts of the involucre, which are long, stiff, with little hooks at their tips, making a bur. Summer.

Large, coarse, biennial herbs, of the nature of weeds, branching, 4 to 9 feet high. In waste places.

The writer recalls, in connection with this plant, an anxious day when her small children were missing. After a prolonged search they were found seated under a large burdock plant, some distance from home, on a road leading into the woods, making baskets and bird's nests by sticking together the burdock flowers.

### Musk Thistle

*Cárduu s nútans*. — *Family*, Composite. *Color*, purple. Much like *Cirsium*, but with leaves running down the stem, and with the winged stem spiny. Large heads, solitary, of the richly colored flowers which when old droop. *Leaves*, 3 to 6 inches long, lanceolate in shape, deeply pinnately cut, sharply pointed at apex, the lobes very spiny. June to October.

In pastures, waste places, and on ballast near seaports, Pennsylvania and New Jersey, northward.

### Common or Bull Thistle. Plumed Thistle

*Círsium lanceolátum*. — *Family*, Composite. *Color*, purple or crimson. *Leaves*, deeply cut, prickly, woolly, alternate, sessile and running down on the stem. *Flowers*, in a round, close head, large, surrounded by a prickly involucre. July to November.

This is the common thistle, one of Europe's undesirable exportations to our shores, the despair of every farmer once it has made its appearance in his pastures.



Musk Thistle (*Carduus nutans*)



## BLUE AND PURPLE GROUP

### Canada Thistle

*C. arvense*.—*Color*, rose purple. A perennial from a creeping rootstock which spreads the faster from being cut. *Leaves*, lance-shape or oblong, much cut, prickly along the margins, sessile, but not running down on the stem.

In fields and cultivated ground, so troublesome a weed it can only be eradicated by frequent, deep plowing.

### Pasture or Bull Thistle

*C. pumilum*.—*Color*, purple. *Heads of flowers*, very large, 2 to 3 inches broad, with leafy bracts below them. *Leaves*, green both sides, cut into acute, prickly, pointed lobes, the upper sessile, clasping; the lower, petioled. *Stem*, stout, low, leafy, 1 to 3 feet high, from solid, thick, and much-branching roots. *Flowers*, fragrant, sometimes white. July to September.

Dry soil, fields and pastures. New England to Delaware and Pennsylvania.

### Tall or Roadside Thistle

*C. altissimum*.—*Color*, light purple. *Leaves*, whitish underneath, rough-hairy above, oblong or lance-shape, bristly toothed, margined, not so deeply cut as some of the species. *Heads of flowers*, 2 inches across, single at the ends of branches. *Involucr-bracts* tipped with a dark glandular spot. Very tall, reaching a limit of 10 feet. August and September.

Rough, leafy, much-branched biennials or perennials, in fields and woods from Massachusetts to Minnesota and southward.

Since thistles are protected from grazing cattle by their spiny nature, and since by their plumed seeds they are easily and widely disseminated, they are among the most formidable of weeds, almost impossible to eradicate when well established. Many old fields are a mass of thistles.

### Swamp Thistle

*C. muticum*.—*Color*, dark purple. *Leaves*, very deeply cut and the divisions very prickly. *Flower-heads*, large, on leafless peduncles, with a few bracts near the base, terminal. *Stem*, tall, 3 to 8 feet high, angled, woolly when young, smoother with age. *Involucr*, not prickly. July to October.

Common in swamps and wet woods, New England to Florida and westward.

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### Cotton or Scotch Thistle

*Onopordum Acanthium*.—*Family*, Composite. *Color*, purple. *Heads*, large, 1 to 2 inches broad, terminal, with a peculiarly prickly and spiny involucre, the outer bracts of which are longer than the inner. *Leaves*, very prickly, running down on the stem, making it winged, deeply cut and lobed, those at base sometimes 12 inches long. *Stem*, coarse, cottony, or woolly, 3 to 9 feet high. July to September.

Rare and local, because, although introduced into our country, it has not yet had time to become common. Roadsides and waste places, New Jersey to Michigan and northward.

### Spanish Buttons. Star Thistle. Knapweed

*Centauraea nigra*.—*Family*, Composite. *Color*, rose purple. *Flowers*, all tubular, with a roundish involucre whose bracts are tipped with a brown fringe, or some of them merely lacerated. *Leaves*, not pinnately cut, the lower on long petioles, the upper sessile or clasping, lance-shape, all woolly and hairy; those under the heads of flowers small. *Stem*, 1 to 2 feet high, rough-woolly, stiff, much branched. July to September.

Fields, waste places, and roadsides, New Jersey northward.

### Brown or Rayed Knapweed

*C. Jacea*.—*Color*, rose purple. *Heads of flowers*, large and showy. Bracts of the involucre brown, their edges fringed or torn. *Leaves*, lance-shape, entire, seldom lobed, slightly toothed, not spiny. June to September.

This species may be known by the marginal flowers of the head being larger than the central, without stamens and pistils. In waste grounds, as fields, also in ballast near our Eastern seaports, New York and New Jersey and parts of New England.

### Bluebottle. Bachelor's Button. Corn-flower

*C. Cyanus*.—*Color*, blue or purplish. A slender-stemmed species with single flowers terminating the branches. Marginal flowers of the head without stamens and pistils, the limb of the tubular corolla 5-cleft, appearing like rays, 1 to 1½ inches broad. Involucre, of 4 series of bracts, fringed at the top. *Leaves*, long, narrow, pointed, the lowest pinnately cut or toothed, the upper entire. Stem and leaves somewhat woolly, especially when young. 1 to 2½ feet high. July to September.

An annual, escaped from gardens where, formerly, it was a favorite flower.



Bachelor's Button.

Corn-flower.

(*Centaurea Cyanus*).

(*Centaurea Jacea*).



## BLUE AND PURPLE GROUP

### Succory. Chicory. Blue Sailors

*Cichorium Intybus*.—Family, Composite. Color, bright blue, sometimes purple or pink. Leaves, those on stem oblong or linear, partly clasping, small; those from root lying on the ground, broader at apex, narrowed into long petioles. Stem, from a deep



SUCCORY. CHICORY. (*Cichorium Intybus*)

tap-root, covered with bristly hairs, rigid, branching, 1 to 3 feet high. Perennials. 1 to 3 heads of flowers on the ends of branches or in the axils of small leaves.

A showy plant, but often ragged and covered with dust. Rays or "straps" of the flowers conspicuously toothed. Common in waste places, empty lots, and roadsides, around

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New York and Brooklyn, and from New England to Iowa. The root, ground, is used as an adulteration for coffee.

### Blue Lettuce

*Lactùca villòsa*.—*Family*, Composite. *Color*, blue. *Leaves*, various; those from the root arrow-shape or lobed at base; those on stem contracted into a winged petiole, all lance-shape or ovate, dentate with sharp teeth, 4 to 6 inches long. *Heads of flowers* on scaly peduncles. *Stem*, 3 to 6 feet high, leafy, terminated with a loose panicle of numerous flowers.

Plants of this genus have milky juice; hence the name "lettuce," from *lac*, meaning milk. All are tall and leafy, with cream-colored or purplish flowers, not unlike the genus *Prenanthes*.

### Lion's-foot. Gall-of-the-earth

*Prenánthes serpentaria*.—*Family*, Composite. *Color*, white or purplish. (See White Flowers, p. 146.)

## CHAPTER VIII

### VARIEGATED FLOWERS

#### Indian Turnip. Dragon Arum

*Arisaëma triphýllum*.—Family, Arum. Color of spathe and sheaths, green, or sometimes dark purple or green variegated with purple stripes or whitish stripes or spots. (See Green Flowers, p. 20.)

#### Larger Blue Flag

*Iris versicolor*.—Family, Iris. Colors, violet blue, variegated with green, white and yellow. (See Blue Flowers, p. 300.)

#### Slender Blue Flag

*I. prismatica*.—Color, violet blue, streaked with yellow. The slender blue flag resembles the larger species in its flower and leaves. (See Larger Blue Flag, p. 300.) The whole plant is more delicate. Flowers, on slender, long pedicels, appear singly or in pairs. The outer, recurved *perianth segments* are about 2 inches in length. The 2 or 3 leaves are linear, like blades of grass. Stem, round, 1 to 3 feet tall. Rootstock slender. June and July.

Found in marshes, near the coast, from Nova Scotia to Georgia.

#### Showy Lady's Slipper

*Cypripedium hirsutum*.—Family, Orchis. Colors, white with crimson markings. (See White Flowers, p. 50.)

#### Ram's Head Lady's Slipper

*C. arietinum*.—Colors, dark purple, crimson, and white. (See Purple Flowers, p. 302.)

#### Larger Yellow Lady's Slipper

*C. parviflòrum*, var. *pubescens*.—Colors, greenish yellow, purple, and golden yellow. (See Yellow Flowers, p. 160.)

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### Calypso

*Calypso bulbosa*.—Family, Orchis. Colors, pink, yellow, and purple. Sepals and 2 of the petals, nearly alike, long and narrow, erect, open, of a crimson shade, striped with purple. Lip, swollen, whitish, spotted with brownish purple, further marked inside by 3 rows of yellow, stiff hairs. Column, broad, petal-like, the lid-like anther drooping from its summit. Flower, single, terminating a low scape, 3 to 6 inches high, arising from a bulbous corm. A single leaf springs near the base of the scape, from the corm, rather long-petioled, roundish or ovate, thin, many-nerved, pointed, with wavy margins, 1 to 1½ inches long. About 3 loose scales upon the scape. May to July.

Deep, moist woods, Maine to Michigan and California, and in the Rocky Mountains. This pretty, bright-colored orchis is solitary and drooping. The bulbous root lies snugly in a bed of moss. Whoever finds this small nymph does not need to be told that he has a treasure. (See Pink Flowers, p. 251.)

### Putty-root. Adam-and-Eve

*Apléctrum hyemale*.—Family, Orchis. Colors, greenish, yellowish brown, white, and crimson. Sepals, narrow, greenish yellow, with a purple tinge. Petals, yellowish, purplish above, like the sepals in form, arching over the column. Lip, white, with magenta spots, open, spreading, shorter than the petals. Leaf, 1, petioled, but not sheathing at the base, springing from the bulbous root at the side of the scape, large, oval, pointed, 4 to 6 inches long. Flowers, about 10, in loose racemes, each upon a separate pedicel and with a narrow bract underneath. May and June.

The singular, united corms of this plant give it its marital name, 2, sometimes 3 or 4, being joined by offshoots. One new bulb is formed every year, but retains life for 2 or 3 years. The latest corm sends up, late in summer, a broad-plaited, many-nerved leaf, which usually lasts over the winter. The next season the flowers come up. Rich, moist woods, extending over the country from New England to California southward to Missouri.

### Wild Columbine

*Aquilegia canadensis*.—Family, Crowfoot. Colors, red and yellow. (See Pink Flowers, p. 258.) Sepals, 5, ovate, colored like the petals. Petals, 5, red lined with yellow; in shape they are long, hollow spurs, ending in a little knob below, tipped with a

## VARIEGATED FLOWERS

short lip above. *Stamens*, many, long, protruding. *Pistils*, 5, making as many long pods tipped with the slender styles. *Flowers*, terminating the branches, nodding so as to bring the knobs of the spurs above, but in fruit the peduncles are reversed so that the pods stand upright. Flowers  $1\frac{1}{2}$  inches long. *Leaves*, both from the root and on stem, compound, divided twice or thrice, the segments again divided into threes. *Leaflets*, rounded and lobed.

One would scarcely dare to deck her hat with red and yellow, but good taste is not offended when Nature's artist dips the brush in chrome for a lining to the columbine's scarlet cornucopias.

Its delicate foliage and bright flower make this a favorite, whether it nods in greeting from its favorite clefts in rocks or grows humbly at our feet.

Insects find sweet honey at the end of the tiny horns, and carry pollen from one flower to another.

### Heart's-ease. Pansy

*Viola tricolor*.—Family, Violet. *Colors*, yellow, purple, and white. (See p. 322.)

### Canada Violet

*V. canadensis*.—*Colors*, yellow or nearly white, with purple tints and stripes. The spurred petal is yellow, with purple veins; lateral petals bearded. *Flowers*, on leafy stems, 3 to 14 inches high. *Leaves*, ovate, heart-shape at base, pointed at apex, serrate, downy underneath along the veins. *Stipules*, large, acute, lance-shaped.

One of the tallest of the violets, and beautifully marked in the flower. In shady, hilly woods, from North Carolina, Tennessee, and Nebraska northward. Also in the Rocky Mountains.

### Pink-root. Worm-grass. Indian Pink

*Spigelia marilandica*.—Family, Logania. *Colors*, red and yellow. *Corolla*, tubular, long, funnel-shaped, deeply 5-parted at the border. *Calyx*, 5-toothed. *Stamens*, 5, joined to the tube of the corolla. *Pistil*, protruding. *Flowers*, in 1-sided spikes, showy. *Leaves*, opposite, with stipules united, sessile, acute, ovate, 2 to 4 inches long, pinnately veined. *Stem*, smooth, erect, branched at base or simple, 1 to 2 feet high. May to July.

In rich woods, New Jersey to Ohio, southward and westward.

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### Lousewort. Wood Betony

*Pedicularis canadensis*.—Family, Figwort. *Colors*, yellow and red or purplish. *Leaves*, the larger from the root, on long, hairy petioles, deeply cut; the upper near the flowers, less incised, much smaller, short-petioled. *Bracts* among the flowers. *Calyx*, tubular, entire, except for a slit down the front. *Corolla*, 2-lipped, the upper lip bent and curved inward, inclosing 4 stamens; the lower 3-lobed, the side lobes large and spreading. *Capsule*, sword-shaped, slightly beaked, opening by a slit on the upper side. *Flowers*, in thick, short spikes. Those which are mostly red in color have reddish stems and leaves; yellow clusters have pale stems and leaves; and these two brunette and blond beauties often stand side by side. They are conspicuous mainly from their fern-like foliage. 5 to 10 inches high. May to July.

There are 100 species of *Pedicularis*, most of them growing in the arctic regions and Rocky Mountains.

Our species love light shade, taking to the open woods. They are early, following closely upon the spring flowers. Often they are out of bloom by the first of June. This is the manner of the plant's growth: When the flower-stems spring up, new growths form beside them, making tufts of a dozen or so leaves. These remain the first season a rosette at the root. They are a sort of spiral branch drawn in. Next spring the branch shoots up, uncoils, straightens, and bears the flower.

### Painted Trillium

*Trillium undulatum*.—Family, Lily. *Colors*, white, crimson, and purple. (See White Flowers, p. 50.)

### Blackberry Lily

*Belamcanda chinensis*.—Family, Iris. *Colors*, orange-yellow and crimson or purple. (See Yellow Flowers, p. 159.)

### Snapdragon

*Antirrhinum majus*.—Family, Figwort. *Colors*, white, blue, purple, or variegated. (See p. 346.)

### Eyebright

*Euphrasia Oakesii*.—Family, Figwort. *Colors*, white, purplish, and yellow. (See p. 127.)

### White Milkweed

*Asclepias variegata*.—Family, Milkweed. *Colors* of corolla, white, with purple spots near the center; of hoods, purplish or

## VARIEGATED FLOWERS

reddish. *Flowers*, in 1 to 4 close umbels on peduncles, terminating the stem, or rarely in the upper axils. *Leaves*, in pairs, or the middle ones sometimes whorled, oval, pointed at apex, rounded at base, contracted into short petioles. *Plant*, 1 to 3 feet high. May and June.

In dry woods and thickets, from Long Island and southern New York to Illinois, south to Florida, Louisiana, and Arkansas.

### BROWN

#### Cat-tail Flag

*Typha latifolia*.—*Family*, Cat-tail. *Color*, brown. *Leaves*, all near the base of the stem, long, narrow, sheathing. Summer.

The picturesque brown of the cat-tails begins to show itself in August. The long, round stem from a creeping rootstock may grow to 5 or 6 feet in height. The dense, cylindrical head of flowers makes a spike; staminate flowers above, pistillate below. No sepals or petals. The pistils are supported upon long stalks which are covered with knobbed, fine bristles, and these later form the down by which the ripe seed is carried by the wind. Marshes and borders of ponds throughout North America.

#### Narrow-leaved Cat-tail

*T. angustifolia*.—*Color*, light brown. In this species the staminate and pistillate flowers are usually separated by a space of 2 or 3 inches. *Leaves*, quite long and narrow.

Not so common as the preceding, and mostly found in shallow water near the coast.

## CHAPTER IX

### VINES AND SHRUBS

OUR native vines and shrubs may be easily identified from the following descriptions. Some *perennial herbs* are included in the list, plants without woody stems, which therefore die down every year, but whose roots continue to live through the winter and send up new stems in the spring. These often have the appearance of true shrubs. An *herb* dies down, stem and root, to the ground every year, and must be reproduced from seed. A *shrub* has woody stems and does not in any part of it die down every year.

#### GREEN, GREENISH, OR GREENISH WHITE

##### **Green Brier. Cat Brier. Horse Brier**

*Smilax rotundifolia*.—Family, Smilax. *Color*, greenish. *Flowers*, of 2 sorts, the staminate bell-shaped, with a 6-divided perianth and 6 stamens; *pistillate*, with 1 to 3 stigmas and a 3-celled ovary. *Fruit*, a round, black, 1 to 3-seeded berry. *Leaves*, nearly round, sharply pointed, 5-nerved, thin at first, becoming thick and shining, alternate, petioled. April to June.

The stems of this vicious vine are square, 4-angled, covered with stout prickles which turn backward. Occasionally the thorns are wanting. The plant climbs by means of tendrils at the base of the leaf-petioles. If a cat brier bars one's way, it is best to turn aside. Some plants are uncompromising, and this is one of them.

Woods, New England to Florida, west to Texas and northward to Minnesota.

*S. hispida*.—In this species the upper part of the stem is covered with very many slender, straight, fine prickles. *Leaves*, much like the last, but more heart-shape at base, 7-nerved, with

## VINES AND SHRUBS

petioles. *Flowers*, in umbels on flattened peduncles. *Fruit*, a bluish black berry. May to July.

Damp thickets, Connecticut to Virginia, westward to Kansas and Texas.

### Carrion-flower

*S. herbacea* has rounded or ovate leaves, obtuse or slightly heart-shape at base, very acute at apex, 7 to 9-nerved, 2 to 5 inches long. The stem has no prickles. *Flowers*, in umbels, many together, and they may be positively known by the carrion-like odor which they emit. June.

Moist meadows, woods, and thickets in all the Eastern States.

### Bristly Green Brier

*S. bona-nox* is a very prickly species, the leaves being spiny on their margins and underneath on the veins. *Leaves*, often narrowed in the middle, distended at base, pointed at apex, smooth and shiny. *Flowers*, numerous, in small umbels. *Berries*, bluish black, 1-seeded. Upright branches springing from rootstocks, which bear large tubers.

Thickets, Massachusetts to Florida and westward to Illinois, Missouri, and Texas.

(Most of our shrubs whose flowers appear in catkins will come under the category of green flowers.)

### Prairie Willow

*Salix humilis*.—*Family*, Willow. *Color*, greenish, with a reddish tinge. *Flowers*, in catkins, appearing much earlier than the leaves. The *pistillate*, about 1 inch long, without perianth, but attended by 1 bract; *stamineate*, consisting of 2 stamens with long filaments. *Capsule*, much longer than its pedicel. *Leaves*, long, lance-shape, acute at both ends, 2 to 4 inches long, the margins slightly rolled back, dark green and softly downy above, often grayish-woolly beneath. *Petioles*, short. *Stipules*, small, ovate or lance-shape. 2 to 8 feet high. Dry soil from North Carolina and Tennessee northward. April and May.

This species frequently bears leafy cones on the ends of its branches, produced, probably, by insects.

### Shining Willow. Glossy Willow

*S. lucida*.—*Flowers*, in catkins, leafy-bracted. The *stamineate* are feathery, with 5 stamens in each flower; *pistillate*, denser, harder, longer, 2 to 3 inches long, often remaining far into the

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spring. Twigs smooth, polished, yellowish or dark green. *Leaves*, ovate, lance-shape, sharply and finely toothed, tapering at apex, glossy green on both sides, 3 to 5 inches long, on stout, short petioles. *Stipules*, rather prominent, heart-shape, glandular. Young leaves covered with stiff, reddish-brown hairs. April and May.

One of the prettiest shrubs of this Family, 8 to 15 feet high, or a small tree, 20 feet high, of regular, bushy form, found in swamps and the borders of streams from Pennsylvania, Illinois, and Nebraska northward.

### Dwarf Gray Willow. Sage Willow

*S. tristis*.—*Catkins*, sessile, few-flowered, small,  $\frac{1}{2}$  inch long, appearing before the leaves. *Staminate flowers* consist of 2 stamens with smooth filaments; *pistillate*, of 2 sessile stigmas raised above the ovary on a thread-like stalk. *Leaves*, very narrow, 1 to 2 inches long, whitish below, green and smooth above, with revolute margins, on short petioles.

The smallest of the genus, a tufted species, 1 or 2 feet high. Dry soil, Maine to Florida, near the coast.

### Bog Willow. Pussy Willow. Glaucous Willow

*S. discolor*.—*Leaves*, broader than the preceding, finely serrate near the middle, entire near the apex and base, bright green above, smooth and whitish below, with petioles and conspicuous stipules, at least on the younger leaves, partly heart-shape, as long as the petioles. *Catkins*, sessile, coming before the leaves in early spring, soft, hairy, glossy, the *pistillate* 2 to 3 inches long. *Bracts* on the catkins dark red, brown, or even black.

A shrub about 15 feet high, variable in form, common on banks of rivers and streams and in low meadows from Maine to Delaware.

### Silky Willow

*S. sericea*.—*Leaves*, long-petioled, finely toothed, narrow, 3 to 4 inches long, very soft and silky, especially when young. *Catkins*, sessile, with a few leafy bracts at their base, about 1 inch long, turning black or dark brown when dried.

Young twigs red or purplish, 5 to 12 feet tall, in swamps and near streams from Maine to North Carolina, westward to Michigan.

Other members of this Family might be listed as small trees or shrubs, but they are more or less localized as along the slopes of certain mountains. Many are plants of the arctic

## VINES AND SHRUBS

regions, very few being found in tropical countries. Willow trees of the temperate regions sometimes attain large size and live a long time. They grow mostly in wet places, and are of use in holding the soil of sloping river-banks together, also for forming wind-breaks. Osier willows are used for baskets and wicker-work. It is said that Alexander Pope planted the first willow in England, by taking a twig which was in a box of figs from the Levant and thrusting it into the ground.

### Bayberry. Waxberry

*Myrica carolinensis*.—Family, Sweet Gale. *Color of catkins*, green. *Leaves*, oblong or lance-shape, narrow at base, somewhat toothed along the middle, thin, green on both sides, dotted with resinous glands. The two kinds of flowers are in separate catkins, each with a bract and a second pair of bractlets. 3 to 5 feet high.

Sandy soil, near the coast, pine woods and dry thickets, New England to Florida. A familiar shrub with fragrant leaves owing to resinous drops. The nut-like fruit bears grains of wax which used to be collected and made into candles. These candles, if burned on Hallowe'en, were supposed to keep off witches.

### Sweet Gale

*M. Gale*.—Catkins appear in early spring, before the long, narrow, wedge-shaped leaves.

A fragrant, woody, tenacious shrub, 4 or 5 feet high, with bark something like black birch, often small-dotted. The stiff, hard heads of nuts formed from the fertile catkins of flowers might be tiny pine cones. Each nutlet, under the magnifying-glass, shows 3 points, 2 being made from "scales" which cover the seed from the base. Small resinous bits of wax (seen only under the glass) dot the nutlets. The cones,  $\frac{1}{2}$  inch long, are crowded together on the fruiting branch. A shrub of the swamps from Maine to Virginia.

Robert Beverly, in *History of Virginia* (published 1705), states that "at the mouths of their rivers, and all along upon the sea and bay, and near many of their creeks and swamps, the myrtle grows, bearing a berry of which they make a hard, brittle wax of a curious green color, which by refining becomes almost transparent. Of this they make candles, which are never greasy to the touch, and do not melt with lying in the

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hottest weather; neither does the snuff of these ever offend the sense like that of a tallow candle, but, instead of being disagreeable, if an accident put a candle out, it yields a pleasant fragrance to all who are in the room, insomuch that nice people often put them out on purpose to have the incense of the expiring snuff."

### Sweet Fern

*M. asplenifolia*.—*Fertile flowers*, in ball-like catkins, the *fruit* being a little hard, green nut surrounded by 8 long, awl-shaped, persistent green scales. In the *sterile catkins* the scales are pointed above, heart or kidney - shape below. *Leaves*, long, lance-shape, cut into fern-like divisions. April and May.

In woods and on hillsides where the soil is dry and sandy. A favorite, common, low shrub, whose leaves when crushed give out a pleasant odor. They droop quickly after being picked.

### Hazelnut. Filbert

*Corylus americana*.—*Family*, Birch. *Color of catkins*, greenish. *Leaves*, oval or ovate, rounded or heart - shape at base, long-pointed at apex, evenly and finely toothed, smooth above, softly hairy beneath, thin, short-petioled. *Petioles* and new twigs sometimes bristly, with small glands interspersed between the hairs. *Shrubs* or small trees. March and April.

Stamineate flowers in catkins at the ends of the old twigs (of the previous season), coming long before the leaves, 3 to 4 inches long, each flower consisting of 4 or more stamens and 2 bractlets, without calyx. Pistillate flowers, in clusters at the end of this season's branches, consisting of a calyx, a 2-celled ovary, a short style, and 2 stigmas. Underneath are 2 large bracts, which in fruit enlarge and cover the edible nut, growing beyond it, leaf-like, fringed, and torn around the edges. *Shrub* 4 to 8 feet high, leafy, branched.

In dry thickets, Maine to Florida and westward to Kansas.

### Beaked Hazelnut

*C. rostrata*.—*Leaves*, broader than the last, pointed, somewhat heart - shape at base, their serrulate margins regularly incised, hairy on the veins beneath, petioles and twigs not glandular and bristly. The involucral bracts surrounding the nuts unite at the summit and are prolonged into a bristly, tubular beak, torn at apex, much longer than the fruit.

Common, like the preceding, throughout all the Atlantic States and in the mountains to Georgia. The filbert is a

## VINES AND SHRUBS

European species (*C. avellana*), whose nuts, ripening in October, grace our Thanksgiving table. One species becomes a tree 50 feet in height (*C. colurna*).

### Low or Swamp Birch

*Bétula pùmila*.—Family, Birch. Many flowers in bracted catkins of 2 sorts, without corolla. *Pistillate catkins* peduncled, about 1 inch long, with 2 or 3 flowers in the axils of 3-lobed bractlets. *Staminate flowers*, 3 together, of 2 stamens, surrounded by a 4-toothed, membranous calyx, with 2 bractlets lying underneath. *Fruit*, a small winged nut. *Leaves*, rather thick, broad, oval or ovate, sometimes narrowed at base, coarsely toothed, with prominent veins reaching to the margin, short-petioled, pale green below,  $\frac{1}{2}$  to  $1\frac{1}{2}$  inches long. May and June.

In bogs, a shrub 2 to 15 feet high, with brown bark and twigs, the young leaves and branches brown, softly downy. New England to New Jersey and westward.

### Dwarf Birch. Glandular or Scrub Birch

*B. glandulòsa*.—*Leaves*, roundish, less than an inch long, crenately toothed, petioled, pale green and with small glands beneath, bright green above. *Staminate catkins*, single,  $\frac{1}{2}$  inch long; *pistillate*, longer, cylindrical. 1 to 4 feet high, with erect, smooth branches, dotted with resinous glands. June and July.

A Northern species, found in the mountains of New England, northern New York, Michigan, in the Rocky Mountains, and far to the northward. These shrubs have the aromatic fragrance peculiar to the birch. There are many species of the birch tree and shrub, confined to the northern temperate and arctic countries.

### Smooth Alder

*Álnus rugòsa*.—Family, Birch. *Color of catkins*, green. They appear earlier than the leaves, clustered, the sterile elongated, drooping; the fertile short and thick. These are formed one summer, remain uncovered through the winter, and are developed the next season. *Leaves*, oval or inversely ovate, narrowed at base, rounded at apex, rather thick, very finely serrulate, 3 to 5 inches long, short-petioled, regularly veined, downy on the veins beneath, with oval stipules falling away early. April.

This shrub grows, mostly near the coast, on hillsides and in wet places, as borders of streams, where it makes close thickets. Farther south it attains the size of a small tree. It is usually 5 to 20 feet high.

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### Green or Mountain Alder

*A. crispa*.—*Catkins* appearing with the leaves, the pistillate from scaly buds, slender-peduncled, short, clustered; staminate, slender, without scaly covering, 1 to 2 inches long, from buds which were formed the season before. *Leaves*, oval, slightly heart-shape, downy on the veins underneath, serrulate with very finely cut teeth, short-petioled, dark green above, paler underneath. June.

Near the coast, along the mountains from Maine to North Carolina and westward across the country. 2 to 4 feet high.

### Speckled or Hoary Alder

*A. incana*.—*Catkins*, appearing before the leaves, the pistillate about  $\frac{1}{2}$  inch long, nearly as broad; staminate, 3 inches long, drooping, both accompanied with 5-toothed bracts. *Leaves*, oval or ovate, usually pointed at apex, finely double-toothed, with smaller teeth between the larger, pale green, whitish or downy underneath, with prominent veins; dark green above, with short petioles.

A shrub, or sometimes a small tree, 8 to 20 feet high, found in wet places, as swamps or damp thickets, from New York and Pennsylvania northward. The common alder with which we are familiar along our streams.

### Scrub Chestnut Oak. Chinquapin Oak

*Quercus prinoides*.—Family, Beech. *Color*, greenish or greenish yellow. *Flowers*, the staminate in long, drooping catkins composed of many stamens surrounded by a 6-lobed perianth; pistillate, single, sessile, borne on last season's twigs. These produce acorns of which the cup is less than half the size of the nut, matured the first season. *Leaves*, oblong to lanceolate, not lobed, coarsely toothed, acute, on short petioles, bright green above, whitish and softly downy beneath, especially the leaves of young branches.

Low, branching shrubs, 3 to 15 feet high, in dry soil over all the States east of the Mississippi River. Most of this Family are large trees. This and the next should be ranked as shrubs, since they never attain great size. They are found almost everywhere in dry, sandy soil.

### Bear or Black Scrub Oak

*Q. ilicifolia*.—*Flowers*, much like the last. *Leaves*, obovate, 2 to 5 inches long, lobed, sharply pointed, broadly triangular, the

## VINES AND SHRUBS

lobes tipped with a bristle. Thickish and gray underneath. Acorns considerably taller than the cup, maturing the second year.

An irregularly branched shrub, without beauty, often found growing in large numbers in burned-over ground. In sandy, sterile soil. Maine to Ohio, southward in the mountains of Virginia and Kentucky.

### Common Hop

*Humulus Lupulus* ("a little wolf," because it grows among and twines around willows and chokes them as a wolf does a flock of sheep).—Family, Nettle. Color, green. Flowers, of two kinds, the staminate in loose racemes or panicles, with a calyx of 5 sepals. The pistillate flowers grow in short, roundish spikes, 2 beneath a single, broad, thin calyx-leaf or fruiting-bract. These bracts, closely grouped and overlapping one another, become the scales of the hop-fruit or *strobile*. Fruit, an achene. The calyx bears resinous dots, which give the hop its special bitter flavor and odor. Leaves, opposite, serrate, deeply 3 to 7-lobed below, becoming alternate and entire above; on long petioles, 1 to 3 inches, with stipules. Fruit ripe in September and October. July and August.

The soporific hop-vine, useful in making yeast and malt liquors, is familiar both as a wild and cultivated vine. The young shoots have been cultivated and eaten like asparagus. Nova Scotia to New York, southward along the mountains to Georgia, westward to the Rocky Mountains in thickets and along streams.

### Climbing False Buckwheat

*Polygonum scandens*.—Family, Buckwheat. Color, yellowish green. Leaves, heart or halberd - shape, pointed, 1 to 6 inches long, with petioles and conspicuous sheaths. Calyx, 5-cleft, the 3 outer divisions reflexed in fruit. Stamens, 8. Stigmas, 3.

A loose, straggling sort of vine, with small, dull flowers on long pedicels in loose racemes. The fruit, an achene, hangs loosely from the older flowers. In woods and thickets from Nova Scotia to Florida and westward.

### Crested False Buckwheat

*P. cristatum* is a more slender, twining species, 12 to 20 inches long. Leaves, triangular, with rather sharp basal angles and pointed apex, long-petioled. Flowers, generally in leafless racemes on jointed pedicels, greenish.

In sandy woods and rocky banks from southern New York to Georgia, westward to Tennessee and Texas.

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### Prickly Gooseberry. Dogberry

*Ribes Cynosbati*.—*Family*, Saxifrage. *Color*, green. *Calyx*, tubular, clinging to ovary, with 4 or 5 lobes above. *Petals*, 5, springing from the throat of the calyx, so small as scarcely to be noticeable. 5 *stamens* alternate with petals. *Ovary*, 1-celled, becoming in fruit a round, rather large berry covered with prickles and tipped with the remains of the shriveled calyx. *Flowers*, 1 to 3, on long peduncles. *Leaves*, nearly round, 1 to 2 inches broad, 3 to 5-lobed, the lobes cut or toothed. *Stems*, with numerous, rather weak, slender spines at base of the leaf-stalks. May.

In rocky woods, Maine to North Carolina, especially among the Alleghanies, west to Missouri. Found 5,000 feet high in North Carolina.

### Smooth Gooseberry. Hawthorn Gooseberry

*R. oxyacanthoides*.—*Color*, greenish yellow, sometimes with a purplish tinge. *Flowers*, 1 to 3, with short pedicels, on long peduncles. *Fruit*, a small, purple, edible berry. *Leaves*, thin, deeply cleft, heart-shape, serrate, the petioles sprinkled with naked glands. A few solitary, whitish spines grow on the stem. A species sometimes found in gardens, but not much improved by cultivation.

The finest gooseberries are raised in the gardens of the operatives of the factories in Lancashire, England. There the berries are sometimes 2 inches in diameter. In Scotland, also, the fruit is large and delicious. It is eaten, when ripe, uncooked, and considered one of the most desirable of fruits. Our climate, with its extreme summer heat, is not favorable to the best development of the gooseberry, which requires coolness and dampness.

### Swamp Black Currant. Swamp Gooseberry

*R. lacustre*.—*Color*, green. *Petals*, 5, small, flat, spreading. *Fruit*, a small, black, bristly berry not agreeable to the taste. *Flowers*, 4 to 9, small, in racemes, on bracted pedicels. *Leaves*, thin, downy along veins, 5 to 7-lobed, the lobes toothed or cut. Whole stem and branches covered densely with weak bristles and larger thorns. May and June.

Found in cold woods, in swamps, in New England, New York, westward to Michigan. Neither a gooseberry nor a currant, but partaking of the characteristics of both.

### Wild Black Currant

*R. floridum*.—*Color*, whitish or greenish or yellowish white. *Flowers*, large, showy, abundant, in racemes with long pedicels.

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*Leaves*, sharply 3 to 5-lobed, dotted, somewhat heart-shape, doubly serrate. *Fruit*, nearly round, black, smooth (no prickles), with a taste insipid, too sweet. Stem and branches free from prickles. April and May.

This species is cultivated, but is not so highly esteemed as the red currant. Woods, rich banks, and alluvial soil, from Virginia to Kentucky and northward.

### Fetid or Skunk Currant

*R. prostratum*.—*Flowers*, in racemes. *Branches* and *stem*, low, prostrate, without prickles or thorns. *Leaves*, 5 to 7-divided, deeply toothed. Long, slender petioles. *Pedicels* and *fruit*, bristly and glandular. When bruised the plant gives out a fetid odor. May and June.

Cold, damp, rocky woods in all States east of the Rocky Mountains.

### Red Currant

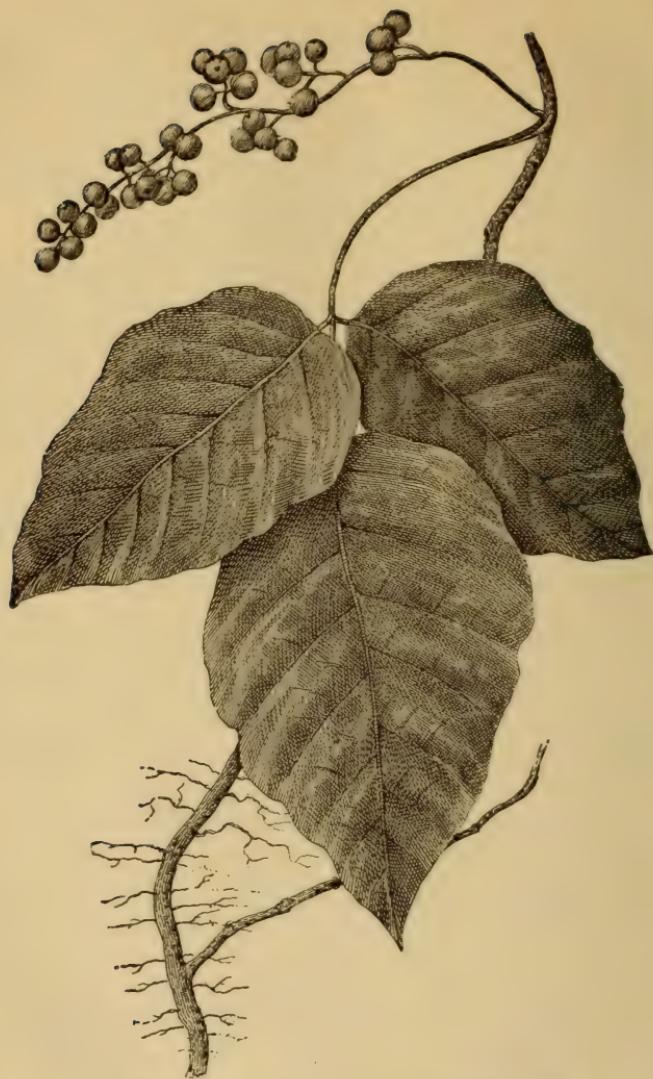
*R. vulgare*.—This is the red currant of our gardens, which by cultivation has become improved. It needs little description. *Flowers*, greenish. *Fruit*, red, acid, in long, hanging racemes. *Leaves*, 3 to 5-lobed, serrate, downy underneath, with whitish veins when young.

Found wild in cold swamps in New England and New Jersey. From the dictionary we learn that the currant is so called from the city of Corinth, in Greece, "whence, probably, the small, dried grape (seedless raisin) was imported, the ripe fruit receiving its name from its resemblance to that fruit."

### Poison Ivy. Poison Oak. Mercury-vine

*Rhus Toxicodéndron*.—*Family*, Cashew. *Color*, greenish or yellowish white. *Leaves*, of 3 variously shaped leaflets on a common long petiole. The terminal leaflet is stalked; lateral leaflets are generally sessile. They are broadly ovate, wavy-toothed, pointed, often lobed. Sterile and fertile *flowers* on different plants. The former have 5 *sepals* and *petals*, the outer ones greenish, the inner white, veined with purple. *Stamens*, 5. The pistillate flowers have 5 greenish white sepals, and 5 yellowish white petals. *Fruit*, a dull, whitish berry. *Flowers*, in loose panicles in the axils of the leaves. June.

This too well-known climbing shrub is gaining ground in certain sections of the country. Formerly it was unknown in New England, but now it infests many farms and roadsides



POISON IVY. POISON OAK. MERCURY-VINE

(*Rhus Toxicodendron*)

(See page 385)

## VINES AND SHRUBS

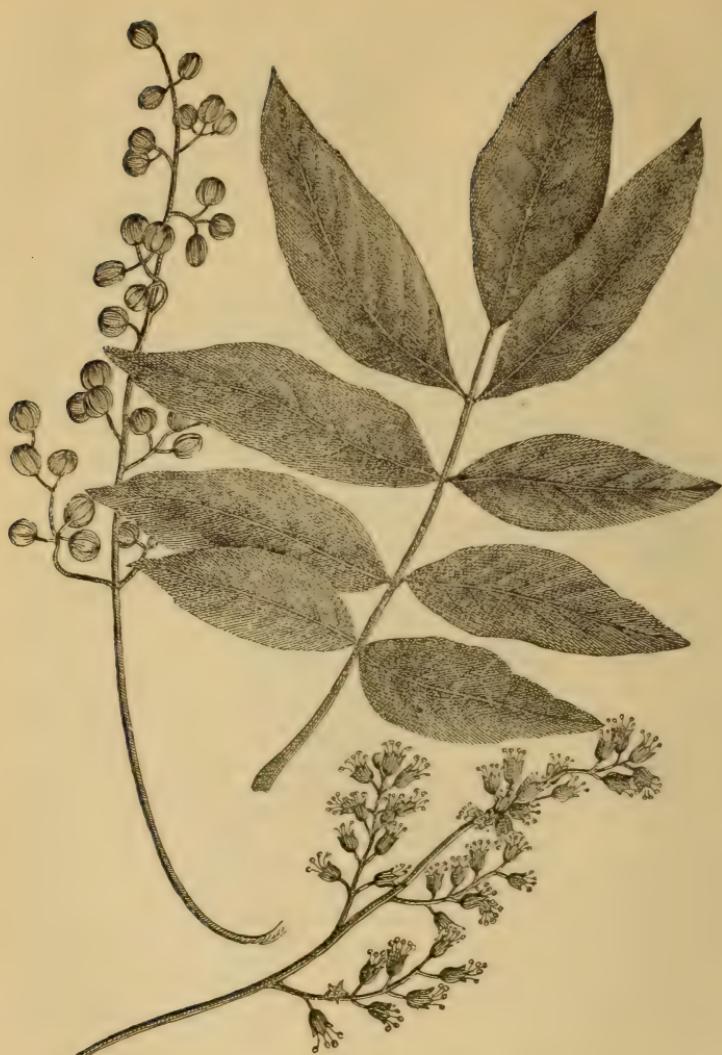
there, as in New York and New Jersey. It flourishes in salt air and in every kind of soil. By means of tiny rootlets on its stem it climbs to the very tops of high trees, enveloping their trunks in a mass of hard-stemmed, 3-leaved foliage; or it covers fences, stopping at the posts for extra decorative effects. It carries itself flauntingly and gaudily, in fall faintly imitating the Virginia creeper, with sickly hues of red and yellow. When it cannot climb it masses itself on the ground. The juice of the plant is thick and yellowish, becoming black after being exposed to the air. It produces an exceedingly irritating eruption upon the skin of persons susceptible to the rhus poison, often dangerous and difficult to heal. Even of persons who are "immune" to this poison, if the juice of the plant is brought in contact with the blood, abscesses and painful sores will almost certainly be produced. It should be rooted out with hoe and plow by every self-respecting land-owner. (See illustration, p. 386.)

### Poison Dogwood. Poison Sumach

*R. Vernix* is the most poisonous plant of our country, and it possesses, moreover, the fatal gift of beauty, often alluring unsuspecting persons in the autumn to fill their arms with its brilliantly colored leaves. With the swamp maple, it adds, most of all plants, to the glory of the swamps. Insanity and even fatal results have been known to follow the handling of its branches. Many people are wholly immune to this plant's evil effects, while others are poisoned simply by passing the shrub. Especially if the pores of the skin are opened by perspiration, it is dangerous to stand near the poison sumach. Ignorance in such a case is culpable, and yet how few have really taken pains to learn this common plant, growing by our roadsides and along our favorite wood-paths! A few simple things are all that it is necessary to remember. First, the *leaf-stalks* are red, with from 7 to 13 sessile, pointed, feather-veined leaflets rather far apart from one another. Second, the *blossoms* are a dull greenish white, in loose panicles from the leaf-axils, *never terminal*. Third, the *fruit* is a white, not red, berry. Fourth, the bark is gray, and the height of the shrub varies from 8 to 15 feet. Lastly, it grows in swampy places. (See illustration, p. 388.)

### Stag-horn Sumach

*R. typhina* is a tall shrub, sometimes becoming a tree. The ends of the irregular branches, covered with a soft, velvety down, give the name stag-horn. *Flowers*, greenish yellow, with a central



POISON DOGWOOD. POISON SUMACH. (*Rhus Vernix*)  
(See page 387)

## VINES AND SHRUBS

orange-red disk, 5-parted *calyx*, 5-petaled *corolla*, 5 *stamens*, 3 *styles*, and 3 short purple *stigmas*. *Fruit*, a close bunch of globular berries covered with crimson hairs. *Stems*, yellowish. *Leaflets*, 11 to 31, sessile, feather-veined, lance-shape, serrate, pointed. June and July.

Dry soil, along roadsides or in fields from New England to Georgia and westward.

### Smooth Sumach

*R. glabra* is our most common species, lining the roadsides and covering barren fields, the foliage turning a rich, dark crimson color in fall. This shrub rarely reaches a height of 10 feet. Its pinnate *leaves* are often 1 foot long, leaflets numbering 11 to 31, sharply toothed, the veins ending in the sinuses. *Flowers*, in large, close, compound, terminal clusters, forming a bunch of small, velvety, crimson-haired berries, of an acid, pleasant taste.

Dry soil, over all the Eastern States.

### Dwarf or Mountain Sumach

*R. copallina* is a low shrub, from 3 to 5 feet high. This is the most beautiful of the genus, owing to the bright, glossy, dark green of the leaflets, on broadly winged petioles. Pyramidal bunches of greenish white *flowers* stand up from the ends of the branches during the summer, followed by a bunch of roundish red berries, gray dotted. *Leaflets*, 9 to 21, unequal at base, generally entire.

The bark of all members of this Family is highly charged with tannin; hence is useful in tanning leather. *R. coriaria*, a foreign species, is most used for this purpose, and finds a market in Great Britain, being exported from Sicily and Italy.

### Staff Tree. Shrubby or Climbing Bittersweet. Wax-work

*Celastrus scandens*.—Family, Staff Tree. *Color*, greenish. Pistillate and staminate flowers, often on different plants. *Corolla* of 5 expanding petals, slightly fringed, inserted under a cup-shaped disk which lines the calyx-tube. In sterile flowers the 5 stamens alternate with the 5 calyx-lobes. In fertile flowers the ovary, 2 to 4-celled, arises from the top of the disk, with a thick style and 2-lobed stigma. *Leaves*, alternate, elliptical or oval, somewhat rounded at base, pointed at apex, finely toothed, petioled, 2 to 5 inches long. *Flowers*, in racemose clusters, terminating the branches. June.

It is the fruit which makes this a favorite plant, a scarlet

## HARPER'S GUIDE TO WILD FLOWERS

aril, containing several seeds in an orange-colored, 3-parted saucer. Underneath is a 5-parted, persistent calyx.

A twining shrub, growing often 15 or 20 feet in length, and covering rocks, bushes, and trees. It buries its roots by the waters of some roadside spring, and its yellow leaves, with its rich, golden fruit, make one of the most beautiful touches of autumn.

### Buckthorn

*Rhamnus alnifolia*.—Family, Buckthorn. Color, greenish. Calyx-tube, urn-like, crowned with 5 lobes, 5 short stamens standing between the lobes. No petals. Flowers, small, single or 2 or 3 together in the leaf-axils, staminate and pistillate, usually in different plants. Fruit, a 3-seeded, black, fleshy, pear-shaped drupe. Leaves, oval, prominently veined, acute at both ends, with short petioles, finely toothed, 2 to 4 inches long. June.

A low and spreading shrub, found in swamps from New Jersey to Illinois, Nebraska, Montana, and California, northward.

*R. caroliniana*.—Flowers, perfect, in fives, single in the axils, or clustered, larger than the last, on peduncles. Leaves, appearing before the flowers, oblong, pinnately veined, pointed at base, somewhat rounded at apex, petioled, broadly toothed. May and June.

A shrub or small tree, without thorns, in swamps or along river-banks, sometimes on dry hillsides, New Jersey to Virginia and Kentucky, south to Florida.

### Common Buckthorn

*R. cathartica*.—Parts of the flower in fours. Leaves, smooth, ovate, petioled, finely serrate. Small branches, rigid, like spines. May and June.

A thorny bush often cultivated for hedges. Grows from 6 to 20 feet high.

### Virginia Creeper. Woodbine

*Psedera quinquefolia*.—Family, Vine. Color, green. Calyx, with 5 short teeth. Petals, 4 or 5, thick, widely open. Flowers, clustered in rather large panicles. Leaves, compound, with, generally, 5 leaflets attached to the apex of the stalk. Leaflets, oval, elliptical, stalked, 2 to 6 inches long, acute at apex, rather coarsely toothed above the middle.

A well-known vine, with woody stems, climbing by means of rootlets and suckers on the ends of branching tendrils.

## VINES AND SHRUBS

These flat disks adhere to smooth or rough surfaces, and pull the plant over trunks of trees, stone walls, etc.

In October small, dark berries appear. Sometimes it is mistaken for poison ivy, which has 3 instead of 5 leaflets. This is not only harmless, but is often transplanted into our gardens, where it mingles with other vines, covering gate-posts and old stumps. It is adapted to every variety of soil. I have been surprised to find it on the very tops of the sand-dunes, where it must catch the salt spray, and nothing else but coarse grass can grow. And in the autumn it paints whatever it covers with glorious masses of scarlet.

### Ampelopsis

*Cissus Ampelópsis*.—*Family*, Vine. *Color*, greenish. *Sepals* and *petals*, 4 or 5. *Flowers*, small, in a loose, slender panicle. *Fruit*, a berry the size of a pea, not edible, blue or greenish, 1 to 3-seeded. *Leaves*, heart-shape or square at base, pointed at apex, coarsely toothed, occasionally lobed, downy along the veins underneath. June.

A climbing, woody vine, along river-banks, from Virginia to Nebraska and south to Florida.

### Northern Fox Grape

*Vitis labrúscia*.—*Family*, Vine. *Color*, greenish. *Leaves*, simple, large, rounded or deeply lobed, distantly toothed, covered underneath with rusty wool. Opposite every leaf is a forked tendril, by means of which the plant climbs. *Bark*, loose, stripping off. *Flowers*, some perfect, others lacking pistils. *Calyx*, short, obscurely 5-toothed. *Corolla*, of 4 to 5 petals. Alternating with the 5 stamens are 5 nectar-bearing glands. *Pistil*, with or without style, and a 2-divided stigma. *Fruit*, a 2-celled, 4-seeded berry of a dark-purple color, with thick skin and tough pulp,  $\frac{3}{4}$  inch in diameter. June.

Sometimes this vine reaches 100 feet in length. It is strong, aggressive, and makes a thicket of its many branches wherever it grows. Its main stem may have a diameter of 6 to 10 inches. It is the origin of many of our cultivated grapes—Concord, Isabella, Catawba, etc.

The word *grape* means bunch, or cluster, from the old French *grappe*.

Fruit ripe in September or October. Moist or dry thickets, the length of the Atlantic coast, westward to the Alleghany Mountains.

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### Summer Grape. Pigeon Grape

*V. aestivalis*.—Leaves, deeply and obtusely 3 to 5-lobed, softly downy with rusty wool when young, broadly toothed, on short petioles. Fruit, a pleasantly flavored, small berry, ripe in September. Flowers in May and June.

This species may at once be known by the omission of the tendril opposite every third leaf. Thickets, from New Hampshire to Florida and westward to Kansas and Texas.

### Frost Grape

*V. cordifolia*.—Leaves, deeply heart-shape at base, shiny, entire or sometimes 3-lobed, sharply and deeply toothed, 3 to 4 inches across, with long petioles. Tendrils, forked, not regularly placed. Trunk grows to a large size, often 1 foot in diameter. Fruit, a small, black, 1 to 2-seeded berry, ripening late in autumn, after frost. Panicle rather long and full. May and June.

Damp thickets and along streams, from New England to Florida, westward to Nebraska.

### River-bank or Sweet-scented Grape

*V. vulpina*.—Leaves, 3 to 7-lobed, the lobes sharp-pointed, teeth irregular, large and small, with toothed and persistent stipules. Panicle of flowers and fruit more compact than the last. Berries, blue, covered with a bloom, acid even when quite ripe, juicy. A touch of frost sweetens this grape.

River-banks and wet thickets. Maryland, West Virginia, northward.

### Muscadine. Southern Fox Grape. Bullace

*V. rotundifolia*.—Leaves, shiny on both sides, rather small, not lobed, roundish in outline, widely and deeply toothed, 2 to 3 inches across. Bark, not loose and torn. Tendrils, not forked. Panicles of flowers, small, thickly flowered. Fruit, with thick, tough skin, large, round, black, without a bloom, musky in taste, ripening early in autumn. Blossoms in May.

The Scuppernong grape is derived from this species. River-banks, in moist, sandy soil, Maryland to Florida and westward.

## VINES AND SHRUBS WITH WHITE BLOSSOMS

### Virgin's Bower

*Clématis virginiana*.—Family, Crowfoot. Color, white. Leaves, opposite, divided, generally, into 3 leaflets, each deeply serrate,



VIRGIN'S BOWER (*Clematis virginiana*)

(See page 392)

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more or less heart-shape at base, smooth, dark green. *Petals*, none. *Sepals*, 4, small, looking like white petals. *Pistils* and *stamens*, in different flowers, numerous, a few sterile stamens often mixed with the pistils. *Flowers*, in leafy panicles. In the center of the fertile flower the fruits ripen into plumose achenes, feathery and downy, enabling the seed to float far in the breeze. July and August.

A long vine, growing over shrubs and fences by means of the turning and twisting of its leaf-stalks. In places it makes a tangle over alders, hazels, and other bushes, twining into a veritable bower. Its hoary, plumed seeds are ripe in September, and, if near one's house, press themselves flat against window-screens. Wet, springy soil, river-banks, etc. New England to Georgia and westward to Kansas. (See illustration, p. 393.)

### Moonseed

*Menispérmum canadénsé*.—Family, Moonseed. *Color*, white. *Stamens* and *pistils*, borne on different flowers of the same plant. *Sepals*, 4 to 8, with 12 to 14 stamens of the same length. *Anthers*, 4-celled. *Pistils*, 2 to 4, raised on a short receptacle, accompanied by 6 sterile filaments and 6 to 8 petals. *Flowers*, very small, paniced. *Fruit*, a fleshy, round, black drupe covered with a bluish bloom. The stone inside is wrinkled, flat, crescent-shape, whence the common name. *Leaves*, alternate, very broadly shield-shape, 4 to 8 inches across, acute at apex, with slender petioles. June and July.

Woody climbers. The panicle of small flowers is not very noticeable, but the bunch of grape-like fruit in September adds beauty to the tangled growth beside our streams. Along banks of streams in all the Eastern States.

### Mock Orange. *Syringa*

*Philadélpus inodòrus*.—Family, Saxifrage. *Color*, white. *Calyx*, tubular, top-shape, the limb 4 to 5-parted. *Petals*, 4 or 5, roundish or ovate, large, not scented. *Stamens*, numerous. *Styles*, 3 to 5, more or less united. *Flowers*, generally 2 or 3 together, terminating short branches; sometimes single. *Leaves*, opposite, oval, pointed at both ends, distinctly 3-nerved, entire around the margins, or with a few small teeth. May.

In thickets south of Virginia. Cultivated in Pennsylvania and escaped from gardens.

### Large-flowered *Syringa*

*P. grandiflòrus*.—A taller shrub than the last, with larger flowers. 6 to 10 feet high. *Leaves*, broad, oval or ovate, acute,

## VINES AND SHRUBS

distantly toothed. *Flowers*, 1 to 3, terminating the stem or axillary among the upper leaves. April and May.

Along streams in the Southern States.

The sweet syringa of our Northern gardens, with large, flowers, in terminal spikes, is *P. coronarius*.

### Wild Hydrangea

*Hydrangea arborescens*.—*Family*, Saxifrage. *Color*, white. *Leaves*, ovate, acute, petioled, smooth, toothed. *Flowers*, like the common garden hydrangea, in compound cymes, those along the margin containing showy, petal-like sepals and stamens, sometimes pistils. The central flowers are complete with stamens and pistils, minute calyx-lobes, and small, greenish petals. Occasionally all the flowers in the center are staminate.

This showy shrub is found in rocky woods from Pennsylvania to Florida.

### Ninebark

*Physocarpus opulifolius*.—*Family*, Rose. *Color*, white, pink, or purplish. *Sepals* and *petals*, 5. *Stamens*, many. *Flowers*, small, in abundant, roundish, umbel-like clusters, each on a slender pedicel, the umbel peduncled. *Pods* follow the flowers, 3 together, of a purplish color, longer and more conspicuous than the flowers. *Leaves*, alternate, roundish in outline, heart-shape or square at base, generally 3-lobed, finely serrate. June.

An ornamental shrub, often cultivated, 3 to 10 feet high, with recurved branches. The old bark becomes loose, and every year separates, hanging in thin strips, whence the common name. Along banks of streams, New England to Florida.

### Meadow-sweet. Quaker Lady

*Spiraea salicifolia*.—*Family*, Rose. *Color*, white, with a tinge of light pink. *Calyx*, 5-cleft. *Petals*, 5. *Stamens*, many. *Pods*, 5, opening along one seam. *Leaves*, alternate, on short petioles, oval or inversely ovate, pinnately veined, serrate, on short petioles, 1 to 2 inches long. June to August.

A slender, tawny-stemmed shrub, 2 to 4 feet high, growing along fence-rows and roadsides in wet soil. The dry fruit of last year is sometimes found on the bush among the flowers of this year. From New England southward, among the mountains, to Georgia and westward. (See illustration, p. 396.)

### Chokeberry

*Pyrus arbutifolia*.—*Family*, Rose. *Color*, white, or tinted with rose purple. *Calyx*, tubular, with 5 divisions, softly woolly, as



MEADOW-SWEET. QUAKER LADY. (*Spiraea salicifolia*)  
(See page 395)

## VINES AND SHRUBS

are also the pedicels. *Petals*, 5, concave. *Stamens*, many, with white filaments and purple anthers. *Flowers*, in compound cymes, terminal, but, later, non-flowering shoots grow beyond them. *Fruit*, size of a whortleberry, round or slightly elongated, red or purplish, acid, dry and sweetish. *Leaves*, simple, alternate, 1 to 2 inches long, elliptical or ovate, finely toothed, with short petioles and narrow stipules, smooth, glossy green, with dark glands along the midribs. March to May.

A shrub 3 to 7 feet high, growing in wet ground, as moist thickets or swamps or damp woods, from New England to Florida, westward to Louisiana, northward to Minnesota.

### June Berry. Service Berry. Shad Bush

*Amelanchier canadensis*.—Family, Rose. *Color*, white. *Leaves*, ovate, pointed, rounded or notched at base, finely toothed, 2 or 3 inches long, on petioles, pale green underneath. *Stipules*, long and narrow, and with the bud-scales silky-downy, falling with the scales. *Calyx*, 5-parted. *Petals*, 5, long, narrow, notched, tapering at base. *Stamens*, many. *Fruit*, a dark-crimsoned, 10-seeded, edible berry, with the calyx points remaining on the tip. The *flowers* grow in spreading racemes, with leaves or bracts among them. They come early in spring, their pure white contrasting prettily with the pale-green, glossy, silky leaves and the pretty crimson of the investing scales. They have a fishy smell. The name shad bush refers to the time of the approach of the spring shad in our waters. April and May. *Fruit* in June.

This often attains the proportions of a small tree. It grows in dry soil, in light woods or thickets, or along the roadsides.

*A. oblongifolia*.—A shrub or small tree, with very whitish, downy young leaves and racemes of flowers. *Leaves*, oblong, oval, or elliptical, finely serrate, acute or rounded at each end, pale green beneath, petioled. *Flowers*, smaller than the last, in dense racemes. *Fruit*, round, juicy.

Wet, swampy ground, in woods or rocky uplands, from Virginia northward.

*A. oligocarpa*.—A shrub, not so tall as the last two species. 2 to 9 feet high. *Flowers*, a few, 1 to 4, in a raceme, long-pedalled. *Fruit*, dark purple, covered with a bloom, pear-shape. *Leaves*, 1 to 3 inches long, thin, oblong or oval, acute at apex, finely toothed, short-petioled.

Found northward in cold swamps, in mountains and damp woods, New England and New York, westward to Lake Superior.

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### Dwarf Thorn. Pear Thorn

*Crataëgus tomentosa*.—Family, Rose. Color, white. *Calyx*, a tube with 5 points the length of the petals. *Petals and styles*, 5. *Stamens*, many. *Fruit*, a yellowish, pear-shape pome, inclosing 5 hard seeds. *Flowers*, 1 to 3 or 4 in corymbs. *Leaves*, alternate, inversely ovate, simple, thickish, shining above, slightly downy along the veins underneath, petioled, lobed, finely toothed. *Stem*, spiny, with thorns 1 to 1½ inches long. May and June.

The hawthorn division of the Rose Family contains many beautiful trees, with fine, close foliage, and small, cherry-like blossoms. The only one distinctively a shrub is the dwarf thorn, from 3 to 6 feet high, growing in dry, sandy soil from New Jersey southward.

### Bramble. Wild Red Raspberry

*Rubus idaeus*, var. *aculeatissimus*.—Family, Rose. Color, white. *Leaves*, 3 to 5-pinnately divided, on bristly petioles, the side leaflets sessile, downy underneath. *Calyx*, sticky, bristly. *Petals*, 5, soon falling. *Flowers*, in terminal or axillary long-pedicelled clusters. *Stem* and branches covered with rigid prickles. *Fruit*, red, composed of round, small, edible drupes, mounted on a spongy receptacle, from which, later, they fall. 3 feet high or less. May and July. Fruit ripe in August and September.

Thickets, dry and rocky woods, in the mountains of North Carolina, in New Jersey and northward. Some of our cultivated raspberries originated with this fruit.

### Black Raspberry. Thimbleberry. Black Cap

*R. occidentalis*.—Color, white. *Sepals*, longer than the petals. *Flowers*, in compact corymbs, terminal. *Leaves*, pinnately divided into 3 leaflets, the latter ovate, doubly serrate, the side leaflets sessile or short-stalked, white-downy underneath. *Stems*, growing long, 10 feet or less, bending over and rooting at the tips, very prickly. May and June. Fruit ripe in July.

A common species, especially in New England. The raspberry is an obliging little fruit, coming after the strawberry and consoling us for the departure of that "best berry that the Lord ever made." Wild raspberries grow in rocky land, up hillsides, along fence-rows, in all the Eastern States, south to Georgia and Missouri.

### Mountain Blackberry. High Bush Blackberry

*R. allegheniensis*.—Color, white. *Leaves*, of 3 to 5 leaflets; when 5, radiating from a common center. Leaflets pointed,

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toothed, ovate, stalked, the terminal ones more or less heart-shape, hairy underneath. *Sepals* and *petals*, 5. The *fruit* of the blackberry is a collection of small fruits, each a drupe, all clinging to a long, juicy, edible receptacle, green, becoming red, then, when ripe, black. *Flowers*, several in a raceme, and the large, tempting berries in clusters. The bush is very prickly, from 6 to 8 feet high, with furrowed, bending branches. The flavor of a perfectly ripe, well-developed high blackberry is finer than any cultivated variety.

Found in fence-rows, borders of thickets, and old fields all over the Northern and Middle States. It is the origin of some 20 cultivated species.

### Dewberry

*R. villòsus*.—*Stems*, somewhat woody, becoming low and trailing, armed with slender prickles. Fruiting branches ascend, bearing large flowers in leafy racemes, then black, juicy berries, composed of a few small drupes.

Dry, open fields and roadsides.

### Sand Blackberry

*R. cuneifòlius*.—A species about 3 feet high, with white *flowers*, 2 to 4 together, nearly 1 inch broad. *Leaves*, 3-foliate, roughish above, whitish downy beneath. *Leaflets*, nearly sessile, inversely ovate, toothed, 1 to 2 inches long. Whole plant armed with stout prickles. May to July. Fruit ripe in July and August.

One of the finest wild blackberries, luscious and tender. Dry or sandy soil, Connecticut to Florida and westward.

### Low Bush Blackberry

*R. trívialis*.—*Stems*, reclining, with short, hooked prickles. Petioles and peduncles also prickly. *Leaves*, 3-divided, leathery, evergreen, petioled, rounded at base, acute at apex, serrate. *Petals*, large, the flowers 1 inch across. *Sepals*, small, turned back. *Fruit*, quite long and pleasant in flavor. March to May.

Virginia to Florida in sterile soil.

### Low Blackberry. Dewberry. Running Blackberry

*R. canadénsis*.—*Leaves* of 3, 5, or 7 small leaflets, radiating from a common center, sharply toothed, not prickly, petioled. *Leaflets*, oval or ovate. A smaller and more seedy berry than the high blackberry.

A shrubby, trailing plant, growing in the dust by roadsides or in dry fields, preferring rocky or sterile soil. Prickles few and weak, the stem sometimes quite smooth. From Newfoundland to Virginia and westward.

**Running Swamp Blackberry**

*R. hispida*.—*Leaves* of 3 leaflets, coarsely toothed, rather thick and smooth, somewhat shiny and evergreen. *Sepals* and *petals*, 5. May.

A small-flowered species, with weak, prickly, trailing stems, sending up flower-bearing, leafy shoots. It is a delicate, pretty vine, not valuable for its fruit, which is small, consisting of a few red or black drupes. The leaves turn a fine shade of red in autumn and mingle with other vines and shrubs with pretty effect. Nova Scotia to Georgia in swampy, grassy grounds or moist woods.

**Beach Plum**

*Prunus maritima*.—*Family*, Rose. *Color*, white. *Leaves*, alternate, with stipules, oval, small, petioled, with finely cut edges, softly downy beneath. *Calyx* of 5 sepals, united below. *Petals*, 5. *Stamens*, many. *Pistil*, 1. *Fruit*, a stone inclosed in fleshy pulp, a *drupe*. Just before being ripe it is crimson, and when fully ripe is a dark purple, covered with a whitish powdery bloom, as large as a good-sized marble. Edible.

A compact, low, spreading bush, from 2 to 6 feet high, found in large numbers on sea-beaches from Maine to Virginia. When found farther inland the fruit is smaller. Bark, dark purple, with light dots.

**Wild Yellow or Red Plum**

*P. americana*.—A tall shrub or medium-sized tree, 10 to 30 feet high. It bears orange or reddish plums, edible, but with a tough and acid skin. *Leaves*, ovate or quite narrow, pointed, smooth, veiny, sharply and doubly serrate. *Calyx-lobes*, hairy inside.

Along river-banks and borders of damp woods, from southern New Jersey to Florida, westward to Colorado.

**Chickasaw Plum**

*P. angustifolia*.—8 to 20 feet high, with few if any thorns. *Leaves*, long, narrow, finely toothed, smooth. *Fruit*, small, reddish, thin-skinned, ripe May to July.

A Southern species, from Delaware to Florida, in dry soil.

**Sloe. Blackthorn**

*P. spinosa*.—A shrub, much branched, thorny, 2 to 15 feet high. *Leaves*, inversely ovate, rounded or narrowed at base, acute or obtuse at apex, serrate, softly downy beneath. *Fruit*,

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small, black, round, with a whitish bloom. *Flowers* appear before the leaves, in clusters, 2 or more in a cluster.

Massachusetts to New Jersey and Pennsylvania, in dry soil, along roadsides and in waste places.

### Choke Cherry

*P. virginiana*.—*Flowers* and *fruit*, in close racemes at the ends of branches. The cherries are dark red, harsh, acid, with astringent taste. *Leaves*, alternate, large, pointed, finely serrate, thin, oval to oblong. *Fruit* ripe in July or August.

A shrub or small tree, generally 2 to 10 feet high. Bark grayish, the inner layers possessing an unpleasant odor. Banks of rivers, New England to Georgia.

### Wild Black Cherry. Rum Cherry

*P. serotina*.—A tall shrub or large tree. *Leaves*, smooth, shining, serrate, the teeth curving inward, bearing in summer long racemes of small, black berries, bitter but pleasant in flavor. The racemes of rather fragrant flowers appear in May. *Fruit* ripe in August.

Nearly everywhere, along fence-rows, roadsides, in open fields, and on hillsides, from Massachusetts to Florida. Used as a remedy for pulmonary complaints.

### Dwarf or Sand Cherry

*P. pumila*.—A trailing shrub, 1 to 6 feet long. A few *flowers* grow clustered along the sides of the branches, with long peduncles. *Fruit*, dark red, almost black when ripe. *Leaves*, narrow, lanceolate, sparsely serrate.

Near the coast, in sand or among rocks, Maine to New Jersey, west to Michigan.

### Shrubby Trefoil. Hop Tree

*Ptelea trifoliata*.—*Family*, Rue. *Color*, greenish white. *Leaves*, 3-foliate. *Leaflets*, ovate, pointed, downy, at least when young. *Calyx*, *petals*, and *stamens*, 3 to 5. *Style*, 1, bearing 2 stigmas. *Fruit*, a round-winged, 2-celled, 2-seeded samara, bitter, used as a substitute for hops. *Flowers*, unpleasantly scented, in compound, flat clusters terminating the branches. June.

Often cultivated. Wild in rocky places from Long Island to Minnesota and southward.

### Black Alder. Winterberry. Fever Bush

*Ilex verticillata*.—*Family*, Holly. *Color*, white. *Leaves*, alternate, oval, inversely ovate or lance-shape, 2 to 3 inches long,

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serrate, pointed, on short petioles, rather thick, dark green above, downy along the veins underneath. *Flowers*, of two kinds, all with short peduncles. Staminate flowers with a *calyx* of 6 small sepals with fringed margins, crowded in clusters of 3 to 12 in the leaf-axils. Pistillate flowers, 1 to 3 in the axils, with a *corolla* of 6 or 7 spreading recurved petals. These have false stamens, with white filaments and anthers containing no pollen. *Fruit*, bright, scarlet berries, each filled with 6 or 8 seeds. The berries remain, clustered along the stem, after leaves have fallen.

This shrub, so attractive in fall, is very common in thickets bordering roadsides—those thickets which should be left as coverts for our birds. The careful farmer who clears away all his shrubbery will have few song birds around his place, and on that account he will have plenty of insects.

### Smooth Winterberry

*I. laevigata*.—A fine shrub of the Holly Family, with *flowers* in the axils, the sterile on peduncles 1 inch long, the fertile nearly sessile. *Fruit* is a conspicuous, orange red berry. *Leaves*, alternate, on short petioles, lance-shape or oblong, pointed at both ends, smooth, thin, light green on both sides, 1 to 2 inches long. June.

Shrub 5 to 10 feet high, with grayish branches, found from Maine to Virginia and in the mountains of North Carolina, in wet places, as swamps.

### Inkberry

*I. glabra*.—An elegant shrub with delicate foliage, often cultivated. *Leaves*, thick, evergreen, dark green above, pale, dotted beneath, lance - shape or oblong, pointed at apex, tapering at base, slightly toothed above the middle. Fertile *flowers*, white, single in the axils, on minute, hairy peduncles; sterile clustered, 3 to 6 in a cluster. *Calyx* and *corolla*, 6 or 7-lobed. *Stamens*, with white filaments and brown anthers. *Berries*, black, shining. June and July.

A low shrub, 2 to 6 feet high, growing in sandy soil not far from the coast, from Massachusetts to Florida.

### Cassena. Yaupon

*I. vomitoria*.—*Leaves*, small, finely crenate, oval, evergreen, pale green beneath. Staminate *flowers* with short peduncles, pistillate sessile. *Berries*, small, round, red. May.

The leaves make a tea for people living along the coast, and the Indians of North Carolina formerly made a "black drink" of them. Virginia to Florida and westward.

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### Dahooon Holly

*I. Cassine*.—Sometimes a low tree, reaching 25 feet in height. *Leaves*, evergreen, with revolute margins, entire, 2 to 4 inches long. *Fruit*, like the last. May and June.

A Southern species, found in swamps from Virginia to Florida and westward to Louisiana.

### Large-leaved Holly

*I. monticola*.—Sometimes a tree. Generally a tall shrub found in the Catskills and in mountain woods along the Alleghanies. *Leaves*, 2 to 6 inches long, thin, serrate, petioled, ovate, tapering to a point at apex, obtuse at base. *Flowers*, fertile, generally single; sterile, clustered. *Berries*, red, large for the genus.

The holly so much used at Christmas time is cut from a tree, *I. opaca*, found all along the coast from Massachusetts to Florida. The leaves are evergreen, spiny-toothed, and berries small, bright red. The English holly is prettier, with very glossy leaves and many red berries.

### Mountain Holly

*Nemopanthus mucronata*.—*Family*, Holly. *Color*, whitish. *Leaves*, oblong or broadly oval, tapering at base, acute at apex, smooth, pale green, with a few small teeth or entire, on short, slender petioles. *Flowers*, of two kinds, the staminate, clustered or single, on long pedicels, with minute calyx teeth; the pistillate with 4 or 5 linear petals. *Stamens*, 4 or 5, with prominent anthers on long, slender, protruding filaments. *Berry*, pale crimson, ripe in August, containing 4 or 5 nutlets in yellow pulp. May.

Shrub 6 to 8 feet high, with grayish bark, the older stems often covered with brown or gray lichens. Low, wet woods or swamps, from Maine to Virginia, westward to Wisconsin.

### American Bladder Nut

*Staphylea trifolia*.—*Family*, Bladder Nut. *Color*, white. *Leaves*, opposite, pinnate or 3-foliate, with long, narrow stipules; the two side leaflets sessile, the middle one with petiole, finely serrate, ovate, pointed at apex. *Flowers*, perfect. *Calyx*, 5-parted, often tinged with pink. *Petals*, 5, contracted into a tube below. *Stamens*, 5, with long, slender filaments and yellow anthers opening inward. *Styles*, 3, as long as the stamens. *Fruit*, a 3-celled, membranous pod, like 3 adhering pods, 2 inches long, tipped with a style, splitting at the top when ripe and disclosing 1 to 4 bony seeds. *Flowers*, in drooping racemes, bell-shape, terminating the small branches. April and May.

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A large, irregular shrub, 8 to 12 feet high, with smooth, grayish bark in which long, white cracks occur. Bark of the older branches greenish brown with lighter stripes. Edges of damp woods, thickets, and moist soil from New England southward to South Carolina and Missouri.

### New Jersey Tea. Red-root

*Ceanothus americanus*.—Family, Buckthorn. *Color*, white. *Leaves*, alternate, 3-ribbed, on short petioles, about 2 inches long, toothed, the teeth tipped with a brown, glandular point; oblong or egg-shape, smooth, except along the veins, which are covered with rusty brown. *Sepals*, 5, white, incurved, rounded. *Petals*, 5 little hoods, mounted on slender claws. In the center of the flower is a fleshy disk, to which the sepals are attached. *Stamens*, 5. *Pistil*, 1, with 3-lobed stigma. *Fruit*, a 3-seeded, 3-celled berry, opening from the center and splitting into 3 carpels. *Flowers*, with white pedicels in small clusters, with long, common peduncles crowded along the upper branches from the axils of the leaves. They are small, and the effect of the umbel is light and feathery, a pure white. July.

Shrub low, 1 to 3 feet high, with pale green stems, which are striped with brown. Growing in dry, woodland places, along borders of roads, often well up a hillside. The leaves were used for tea during the American Revolution. The root-bark, a bright red color, has astringent qualities, and has been used in medicine. It furnishes a brown dye.

*C. ovatus*.—*Leaves* differ from the last species in being very narrow and broadly ovate or obtuse at the apex. *Peduncles*, short. *Flowers*, in clusters at the tips of leafless branches.

A rare species in the East, but commoner westward to Minnesota and Illinois, in dry or sandy soil.

### Loblolly Bay. Tan Bay

*Gordonia Lasianthus*.—Family, Tea or Camellia. *Color*, white. *Leaves*, leathery, lance-shape to oblong, finely toothed, smooth, shiny, feather-veined, without stipules. *Sepals* and *petals*, 5, the latter 1½ inches long. *Stamens*, in clusters at the base of each petal. *Style*, 1. *Pod*, 5-valved. *Flowers*, showy, borne on long peduncles in the axils.

A shrub or small tree found in swamps from Virginia southward, near the coast.

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### Passion Flower

*Passiflora incarnata*.—Family, Passion Flower. *Color*, white and purplish. A woody vine climbing by tendrils opposite the leaves. *Leaves*, alternate, deeply 3-lobed, roundish in outline, smooth, 3 to 5 inches broad, with pointed lobes, finely serrate, on petioles  $\frac{1}{2}$  to 2 inches long. *Flowers*, single, axillary, consisting of a bell-shape, tubular calyx with 4 or 5 narrow lobes at top; a double or triple fringe of large purplish hairs or bristles called a crown, in the throat. 4 or 5 petals lie under the fringe, joined to the calyx-tube. *Ovary* is raised on a little stalk around which the filaments make a hollow tube, with anthers distinct. *Fruit*, size of a small lemon, 2 inches long, yellowish, edible, a many-seeded berry, called may-pop. May to July.

Dry soil, Virginia to Florida, westward to Texas.

The passion flower vine is better known North in cultivation. The flower was named by Roman Catholic missionaries in South America, who fancied they found in it symbols of the passion of our Saviour—"the crown of thorns in the fringes of the flower, nails in the styles with their capitate stigmas, hammers to drive them in the stamens, cords in the tendrils."

### Bunchberry. Dwarf Cornel

*Cornus canadensis*.—Family, Dogwood. *Color*, greenish white, sometimes purple-tipped. *Leaves*, nearly sessile, 4 or 6 in a whorl, lying close under the flower, ovate, pointed, with curved, parallel veins. Below on the stem are a few smaller, scale-like leaves. The *flowers* are clustered in the center, small, greenish, with black dots among them. *Calyx*, minutely 4-toothed. *Corolla*, of 4 oblong, spreading petals. *Stamens*, 4, with white anthers. *Pistil*, 1. Directly under the head of flowers are 4 large, pointed, white, petal-like leaves, an involucre, which appear to be the flower itself. Later the flower-stalk lengthens and bears a bunch of bright red berries, very striking and pretty. June.

This small imitation of the larger flowering dogwood blossom (*C. florida*) is only 5 to 7 inches high. It is not uncommon in deep woods in New Jersey and New York, westward to Minnesota. Whether in blossom or in fruit, it is a pretty plant to find and study.

### Round-leaved Cornel or Dogwood

*C. circinata*.—*Color*, white. *Leaves*, opposite, round or oval, distinctly pointed, veins curving and parallel, downy beneath, petioled, 2 to 6 inches long. *Calyx*, minutely 4-toothed. *Petals*,

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4. *Stamens*, 4, with slender filaments. *Style*, 1. *Flowers*, gathered into broad, open, flat cymes, without the white involucre which we know in the flowering dogwood, the tree which, because of this involucre, is the most showy of the genus, making our spring woods bright. *Berries* of the round-leaved cornel light blue. May and June.

Shrub, 6 to 10 feet high, with greenish, warty-dotted branches. Rich or poor soil, in rocky woods, Maine to Virginia, west to Illinois and Iowa.

### Silky Cornel. Kinnikinnick

*C. Amònum*.—A shrub 3 to 10 feet high, with flowers and fruit much like the last. *Leaves*, narrower, ovate or elliptical, pointed, silky-downy, pale green underneath. *Branches*, purplish. Whole shrub downy or often rusty. *Flowers*, in compact cymes. *Fruit*, light blue. June and July.

Wet places in all the Eastern States. (See illustration, p. 407.)

### Red-osier Dogwood

*C. stolonifera*.—This shrub, 3 to 15 feet high, may be known by its bright red branches, especially when young. *Leaves*, rounded at base, ovate, short-pointed, whitish underneath, rough on both sides. *Flowers*, few, in small, flat cymes. *Berries*, white or grayish white. This is a shrub that makes thick clumps of growth by means of underground or prostrate suckers. June.

Common throughout New England and across the continent, northward.

*C. paniculata* has smooth, gray branches. *Leaves*, ovate to lance-shape tapering at apex, acute at base, pale underneath. *Flowers*, white, in elongated cymes or panicles. *Fruit*, white, on pale red stalks. June and July.

A slender shrub found on river-banks, beside streams, and in moist thickets from Maine to Minnesota and southward. The leaves of the shrubs of this Family turn beautiful shades of yellow and red in the fall.

### Stiff Cornel

*C. stricta*.—A Southern species, 8 to 15 feet high, with gray branches, *flowers* in loose cymes, with blue anthers and blue fruit. April and May.

In swamps, Virginia to Florida, westward to Missouri.



SILKY CORNEL. KINNIKINNICK. (*Cornus Amomum*)  
(See page 406)

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### Angelica Tree. Hercules' Club

*Aralia spinosa*.—*Family*, Ginseng. *Color*, white. *Leaves*, alternate, compound, the leaflets ovate, serrate, acute at apex, short-petioled, pale underneath. *Stem*, stout, and with the branches and petioles bearing spines. *Flowers*, resembling those of the Parsley Family, and, like them, in compound umbels terminating the branches. *Peduncles*, softly downy. *Fruit*, black. June to August.

Low grounds near streams from southern New York to Florida and westward to Texas.

### White Alder. Sweet Pepper Bush. Alder-leaved Clethra

*Clethra alnifolia*.—*Family*, Heath. *Color*, white. *Leaves*, toothed from below the middle to the apex, entire toward the base, alternate, sharp-pointed, ovate or wedge-shape. *Calyx*, of 5 sepals united into a cup, which closes around the ovary. *Corolla*, of 5 spreading petals. *Stamens*, 10, of unequal length, with arrow-shaped anthers, which are upright in the bud, turned downward in the flower. *Flowers*, very fragrant, almost too sweet, in long, terminal, erect spikes, remaining long on the bush before withering. They are followed by dry, 3-celled capsules. July and August.

A beautiful shrub, 2 to 8 feet high, seeking wet soil by slow streams, massing in thickets. Near the coast, from New England to Virginia and southward. (See illustration, p. 409.)

*C. acuminata* is a shrub or small tree, 10 to 20 feet high, found in the Alleghany Mountains, southward to Georgia. *Leaves*, oval, pointed, finely toothed, 3 to 7 inches long, pale green underneath, on rather short and slender petioles. *Flowers*, in drooping racemes, with long bracts, sweet-scented.

### Labrador Tea

*Ledum groenlandicum*.—*Family*, Heath. *Color*, white. *Leaves*, evergreen, oblong or elliptical, alternate, entire, margins revolute, with reddish wool underneath, on short petioles. *Calyx*, 5-toothed. *Corolla*, of 5 distinct oblong, spreading petals. *Stamens*, 5 to 10. *Style*, white, turning red. *Flowers*, in umbel-like clusters terminating the branches.

A shrub, 2 to 3 feet high, whose leaves when crushed exhale a pleasant, tea-like fragrance. The clusters of flowers



WHITE ALDER. SWEET PEPPER BUSH. ALDER - LEAVED CLETHRRA  
(*Clethra alnifolia*)  
(See page 408)

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arise from the center of a scaly bract which is resinous-dotted. It grows in moist woods, on hillsides, in bogs, from New England to Pennsylvania and northward.

### Fetter Bush

*Leucòthoë racemòsa*.—*Family*, Heath. *Color*, white. *Leaves*, lance-shape to oblong, acute, short-petioled, minutely toothed. *Calyx*, of 5 nearly separate sepals, attended by white, scaly bracts underneath. *Corolla*, united into a tube below, 5-toothed. *Stamens*, with awned anthers. *Fruit*, a 5-celled capsule. *Flowers*, nearly sessile, in close, 1-sided racemes terminating the branches, a few in the axils. May and June.

A tall shrub, 5 to 10 feet high, found in moist woods and thickets, near the coast, from Massachusetts to Florida.

*L. axillàris*.—*Color*, white. *Leaves*, thick, shining, evergreen, petioled. *Flowers*, borne in good-sized racemes, very early in spring, from February to April. On banks of streams.

This and the two following species are found from Virginia southward.

*L. Catesbaèi* has pointed, serrulate, ovate-lanceolate *leaves*, with small, white *flowers* in racemes. About 3 feet high, with spreading, often recurved branches. The flowers have the odor of chestnut blossoms. May.

*L. recúrva* is a low, straggling bush found on dry hills of the Alleghanies. *Flowers* and *leaves* similar to the last. The species may further be distinguished by the anthers and stigmas. In this and *L. racemosa* the anthers are awned and the stigma is simple. In the other two the stigma has 5 rays. These differences may be seen under the microscope.

### Mountain Laurel. Spoonwood. Calico-bush

*Kálmia latifòlia* (named from Peter Kalm, a pupil of Linnaeus and a distinguished botanist).—*Family*, Heath. *Color*, white or rose-color. *Leaves*, thick, evergreen, alternate, oblong, pointed, on short petioles, opposite, scattered or clustered. *Calyx*, 5-parted, clammy, covered with glutinous hairs. *Corolla*, first tubular, then expanding, wheel or umbrella shape, with 10 horn-like projections on the outside, in which repose the 10 anthers on white filaments. When they are slightly jarred, as by a visiting insect, they spring up and fling their pollen over the insect's body, which thence flies to another flower and rubs against its pistil, thus securing cross-pollination. *Capsule*, 5-

## VINES AND SHRUBS

celled, many-seeded. *Flowers*, large, showy, delightfully fragrant, in heavy corymbose heads on stout peduncles from the axils of the leaves, from which also one or more pairs of opposite, leafy branches spring. May and June.

Many regard this as our most beautiful American shrub. The color of the great masses of flowers varies from white to deep pink. The top-shape buds are of a still deeper color, 10-ridged, the ridges meeting at the center. In deep mountain ravines it may attain the height of 20 feet; usually it is 4 or 5 feet high. It often covers acres with a close growth of luxuriant, rich foliage. We should take pains in its season to visit our laurel groves, where its rolls of blossoms, mixed with clumps of azalea, border a lake or stream, or stray up a mountain-side. South of Pennsylvania it often becomes a small tree.

### Clammy Azalea. White Swamp Honeysuckle

*Rhododendron viscosum*.—*Family*, Heath. *Color*, white. *Leaves*, alternate, oblong, smooth, except the margins and midrib, which are bristly. *Calyx*, small, 5-parted. *Corolla*, tubular, with 5 spreading lobes, shorter than the clammy, sticky tube. *Stamens*, 5, with long, protruding, red filaments. The *anthers* open by a round, terminal pore. *Style*, hairy. *Fruit*, a 5-celled capsule. *Flowers*, large, showy, deliciously fragrant, in clusters, which grow from early spring flower-buds of numerous, overlapping scales. 6 to 12 blossoms springing from the same point, all on a short stalk, make a corymb-like cluster. At the base of each flower-stalk there are bract-like scales. The tube is beset with clammy, viscous, brown hairs. June and July.

This plant takes readily to cultivation, and our florists have in bloom about Easter great pots of magnificent azaleas to mingle warmth and fire with the soft, pale, cold, Easter lilies.

Maine to Florida, not far from the coast. Especially in swamps.

### Great Laurel. American Rose-bay

*R. maximum* has *leaves* thick and leathery, with stiff, turned-back margins, evergreen, oblong or broadly elliptical, glossy green (when old, rusty brown), 4 to 8 inches long, on hollow, flattened petioles. *Calyx*, 5-parted. *Corolla*, tubular. *Stamens*, 10. July.

A near relative to the azalea, with great, broad bunches of blossoms, white or pink, the petals spotted. Corolla 1 or 2

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inches across. In cultivation the flower becomes very large, and is of white, yellow, pink, and red colors, one of the finest shrubs of our gardens. I have found its large, shiny leaves and showy blossoms wild on the borders of lakes in New Jersey. It is low and spreading, growing in clumps in moist, cold, shady places. In the Southern States, where it is more common, it attains a height of 20 to 25 feet. Stem grayish, and leaf-stalks yellow or yellowish green, covered with a hoary down. Common through the Alleghanies, from New York to Georgia; rare in New England.

### Water Andromeda. Bog Rosemary

*Andromeda glaucophylla*.—Family, Heath. *Color*, white, sometimes tinted with light pink. *Leaves*, linear or lance-shape, on short petioles, with revolute margins, thick, glossy, evergreen, pointed, white underneath. *Calyx*, of 5 nearly separate divisions. *Corolla*, round, tubular, nearly closing at the mouth, 5-angled. *Stamens*, short, with divided, brown anthers opening in pores at the top. *Fruit*, a 5-celled, many-seeded capsule. A low, smooth shrub, 6 to 18 inches high, with terminal umbels of flowers.

Linnæus himself named it after the fabled Andromeda. He came across it in Lapland, and says:

"This plant is always fixed on some little turf-y hillock in the midst of the swamps, as Andromeda herself was chained to a rock in the sea, which bathed her feet, as the fresh water does the roots of this plant. Dragons and venomous serpents surrounded her, as toads and other reptiles frequent the abode of her vegetable resembler. . . . As the distressed virgin cast down her blushing face through excessive affliction, so does this rosy-colored flower hang its head, growing paler and paler, till it withers away. . . . At length comes Perseus, in the shape of summer, dries up the surrounding water, and destroys the monsters."

Wet, boggy places in Pennsylvania, New Jersey, northward and westward.

### Stagger-bush

*Lyonia mariana*.—Family, Heath. *Color*, white. *Leaves*, thin, oval or oblong, smooth above, black-dotted underneath, entire, 2 to 3 inches long, revolute along the margins. *Bell-shape flowers* like those of Andromeda hang in clusters along the sides of the almost leafless branches of the last season. *Corolla*, about

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$\frac{1}{2}$  inch long, with 5 short teeth at the summit. Sometimes tinted with pale pink. Rather larger than flowers of the preceding. May to July.

A low shrub, 1 to 4 feet high, with upright leaves and branches. It is thought to poison lambs and calves which browse upon its tender leaves. In sandy soil and low grounds near the coast, Rhode Island to Florida, westward to Tennessee and Arkansas.

### Male Berry. Privet Andromeda

*L. ligustrina*.—A taller shrub than the last, 3 to 12 feet high. Flowers, small, roundish, numerous, crowded in terminal compound racemes. Leaves, entire, or with very minute teeth, inversely ovate, acute at each end. June and July.

Swamps and wet thickets, from New England to Florida and westward.

### Leather Leaf. Dwarf Cassandra

*Chamaedaphne calyculata*.—Family, Heath. Color, white. Leaves, evergreen, leathery, resinous-dotted, and when young covered with scurfy scales, small,  $\frac{1}{2}$  to  $1\frac{1}{2}$  inches long, oblong, some of them lance-shape, with a few minute teeth, the upper ones, especially those among the flowers, reduced to bracts. Calyx, of 5 stiff, rigid sepals. Corolla, tubular, cylindrical, 5-toothed. Stamens, 10, anthers opening by a hole at the top. Capsule, 5-celled. The sprays of waxen-white, close, bell-shape flowers droop upon slender pedicels springing from the axils of the small, upper leaves. April and May.

New England bogs and New Jersey barrens, southward to Georgia, westward to Minnesota, Wisconsin, and Illinois. A shrub, 3 to 12 feet high, much branched, erect, with stiff, slender branches.

Cassandra, daughter of Priam and Hecuba, was a beautiful prophetess. One of the legends connected with her is that she and her brother, while asleep in the sanctuary of Apollo, had their hearing changed so that they could understand the voices of birds. Because Cassandra refused to obey the god Apollo, he ordained that her prophecies should meet with no belief. Therefore, when she predicted the ruin of Troy, the indignant Trojans shut her up in a mad-house. (See illustration, p. 414.)

### Bearberry

*Arctostaphylos Uva-ursi* (name from the Greek, meaning a bear and a bunch of grapes. Why grouped in a name is unexplained).



DWARF CASSANDRA (*Chamædaphne calyculata*)  
(See page 413)

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—*Family*, Heath. *Color*, white, or sometimes tinged with pink. *Leaves*, alternate, thick, evergreen, broader at apex, narrowing at base, entire, small, smooth, dark green on both sides. *Calyx*, 5-parted. *Corolla*, urn-shape, with 5 short teeth, turning backward. *Stamens*, 10; anthers with minute bristles near the top, opening by terminal pores. *Fruit*, a red, berry-like drupe, with 5 to 10 bony seeds. These berries make winter food for birds. *Flowers*, in a raceme on the ends of trailing stems, with scaly bracts underneath. May.

A trailing shrub, 6 to 24 inches long, in dry, sandy, or rocky soil, from New Jersey and Pennsylvania northward into the arctic regions, westward to Missouri. (See illustration, p. 416.)

### Alpine Bearberry

*A. alpina*.—This is a tufted, dwarf species, with black, edible fruit. Found in New England and farther north upon Alpine summits.

### Deerberry. Squaw Huckleberry

*Vaccinium stamineum*.—*Family*, Heath. *Color*, greenish white, or with a purplish tinge. *Leaves*, oval or ovate, pointed at apex, round or slightly obtuse at base, smooth, with short petioles, pale green underneath, 1 to 4 inches long. *Calyx*, 5-toothed, clinging to the ovary and forming a berry with a 5-rayed star at the top, as in *Gaylussacias*. *Corolla*, bell-shape, open. *Stamens*, 8 or 10, with the style protruding. *Flowers*, on long pedicels, drooping, numerous near the tops of branches, with many leaves, forming racemes. *Fruit*, a large greenish or yellowish, few-seeded, pear-shaped berry, scarcely edible.

A shrub, 2 to 5 feet high, found in dry woods from Maine to Florida and westward.

### Farkleberry

*V. arboreum*.—A Southern species, becoming a small tree, from 6 to 30 feet high, with oval or ovate, entire, pointed, glossy *leaves*, evergreen in the far South. *Corolla*, bell-shape, white, the style but not the stamens protruding. *Flowers*, drooping, on slender pedicels, in leafy racemes. *Berries*, black, many-seeded, mealy, not edible. May and June.

In sandy soil, North Carolina to Kentucky. Called spartleberry.

### Blueberry

*V. virginicum*.—*Color*, white or light pink. (See under Pink Shrubs, p. 444.)



BEARBERRY (*Arctostaphylos Uva-ursi*)  
(See page 413)

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### Low Sweet Blueberry. Early Sweet Blueberry

*V. pennsylvanicum*.—*Color*, white or pinkish. *Leaves*, lance-shape or oblong, with fine, small teeth, pointed at both ends, small, downy on the veins underneath, smooth above. *Corolla*, bell-shape, long, smaller at the mouth, with style slightly protruding. *Berries*, a rather light blue, with a whitish bloom, very sweet, found clustered on the ends of the branches. Branches irregular and angular, smooth, with light green, white-dotted bark. May and June.

Our earliest and sweetest blueberry. A low, straggling shrub, 6 to 20 inches high, found in dry, sterile soil, in woods, fields, and barrens, from Newfoundland to Virginia and westward. Berries ripe in June and July.

### Sour-top or Velvet-leaf Blueberry. Canada Blueberry

*V. canadense*.—A species in which the berries ripen later than the last, July and August. *Leaves*, elliptical or lance-shape, downy on both sides. *Flowers*, few, in clusters or racemes on the naked branches, small, on short pedicels. May and June.

A low shrub, 6 to 20 inches high, found in moist woods or swamps or dry fields from New England southward along the mountains to Virginia.

### Late Low Blueberry

*V. vacillans*.—A shrub 10 to 36 inches high, with berries ripening late, July and August. Flowers and leaves much like the preceding species. Berries with a bloom. *Flowers*, small, thickly clustered, bell-shape. Often pinkish in color.

### Swamp Blueberry. Tall Blueberry. High Bush Blueberry

*V. corymbosum*.—*Color*, white or with a pink tint. The finest of the genus. *Leaves*, large, dark green, paler beneath, oval, pointed, entire. *Flowers* and *fruit*, on short peduncles in close clusters, borne on short branches which are the growth of the previous year; 1 or 2 yellowish bracts at the base of each.

Growing in swamps, 6 to 15 feet high, bearing great quantities of fruit, often half a bushel on a single bush. Berries mature in August. Less often found in dry thickets, when the fruit is not so fine. North of Virginia, and westward.

### Storax

*Styrax grandifolia*.—*Family*, Storax. *Color*, white. *Leaves*, large, 2 to 6 inches long, smooth, dark green above, pale, softly

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downy underneath, inversely ovate or oval, dentate, with a woolly petiole. *Corolla*, generally 5-parted, downy. *Calyx*, 5-toothed. *Stamens*, twice as many as the lobes of the corolla. *Fruit*, round, with calyx adhering. *Flowers*, in long, loose racemes, showy.

Shrub 5 to 12 feet high, found in woods from Virginia to Florida. Whole plant softly tomentose.

*S. puverulenta* is a smaller shrub with narrower leaves than the last. *Leaves*, mostly entire-margined, quite rough and scurfy underneath. *Flowers*, large, wheel - shape, fragrant, white, in pairs or threes borne in the axils of the leaves near the tips of the branches.

Two to 4 feet high. Pine barrens, Virginia to Florida and Texas.

*S. americana* is the tallest of the genus, 4 to 10 feet, with smaller blossoms and smoother foliage than the last. *Leaves*, bright green above and below. *Flowers*, generally single, drooping, in the leaf-axils.

A Southern species, Virginia to Florida and along the Mississippi Valley, northward to Illinois.

### Old Man's Beard. Fringe Tree

*Chionanthus virginica*.—*Family*, Olive. *Color*, white. *Leaves* entire, oval, acute, petioled, somewhat thick. *Calyx*, 4-parted, small. *Petals*, 4, united at base, long, narrow, thread-like. *Flowers*, paniced, drooping, the long, wavy petals giving the whole shrub or small tree a soft and delicate appearance when in blossom, in May and June. *Fruit*, a purple drupe.

Banks of streams from New Jersey to Texas. Often cultivated.

### Privet

*Ligustrum vulgare*—*Family*, Olive—is the common privet used largely for hedges. It is easily grown, endures considerable cold; with its profuse branching and small, bright green leaves, makes one of the best of hedge plants. Its white flowers, coming early and late, have a disagreeable odor, and are usually pruned off when in bud.

### Indian Hemp

*Apocynum cannabinum*.—*Family*, Dogbane. *Color*, greenish white. *Leaves*, oblong, those near the ends of branches almost lance - shape, with short petioles or none, pale green, slightly downy beneath, tipped with a sharp point, opposite. *Calyx*,

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5-parted, its lobes nearly as long as those of the deeply parted corolla. *Flowers*, not expanding, bell-shape. At the base of the corolla, opposite its lobes, alternate with the stamens, are 5 triangular appendages. *Fruit*, 2 slender pods 3 or 4 inches long. Flowers in cymose clusters, with pedicels, terminal or axillary. The central cyme is first in bloom. June to August.

A common and variable shrub, growing on banks of streams, or smaller and more spreading on sea-beaches; sometimes found in drier soil. New England to Florida and across the continent.

### Wild Potato Vine. Man-of-the-Earth

*Ivomoëa pandurata*.—*Family*, Convolvulus. *Color*, white with purple stripes and sometimes purple center. *Leaves*, roundish, heart-shape at base, pointed, with long petioles, entire, the later ones sometimes 3-lobed. *Corolla*, open, funnel-form, the limb 5-divided by folds down the places of division and points in the middle, 2 to 3 inches long. *Flowers*, 1 to 5, on peduncles which are longer than the petioles. June to September.

A trailing or twining vine, with long, stout stems, resembling the morning glory. Root tuberous, very large, giving the plant one of its common names, man-of-the-earth. Dry ground, fields and hills, Connecticut to Florida and westward.

### Field Bindweed

*Convolvulus arvensis*.—*Family*, Convolvulus. *Color*, white or with a pink tinge. *Leaves*, small, 1 to 2 inches long, arrow-shape at base, the basal lobes pointed, diverging, on slender petioles shorter than the peduncles. *Corolla*, funnel-form, its limb plaited, distinctly divided into 5 lobes. *Flowers*, usually in pairs, sometimes single, on slender peduncles on which are 2 or 3 small bracts, and perhaps 1 more on one of the pedicels. *Blossoms*, small, about 1 inch across. May to September.

A trailing or twining vine from a perennial rootstock, becoming a weed near the coast. Flowers open with sunlight and close at night. In waste grounds and dry fields, from New Jersey and Pennsylvania, westward and northward.

### Hedge Bindweed

*C. sepium*.—*Color*, white or light pink. *Flower*, larger than the last, about 2 inches across. It may further be distinguished by two large, leafy bracts under the calyx. *Flowers*, single, on long, slender peduncles which are 4-angled. *Leaves*, triangular,

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halberd - shape at base, the lobes spreading, acute, sometimes a little toothed. June to September.

A smooth-stemmed vine, 3 to 10 feet long, trailing or twining, or matting on the ground if it cannot climb; but it prefers to rise into the light by the aid of small bushes and herbs. It spreads very fast by means of running rootstocks, in moist soil along the coast or banks of rivers, helping to thicken the growth of thickets which are made wherever small streams feed the roots with perpetual moisture. New England to North Carolina and westward.

Var. *pubescens* is low and trailing, 1 to 3 feet long, often lying on the ground, with branches and leaves softly downy. *Flowers*, white, rarely pink. *Leaves*, 1 to 2 inches long, long-petioled, triangular in shape, not much indented at the stalk, but slightly heart - shape, the lobes acute. May to August.

Common. Virginia to Florida and westward.

### Buttonbush. Riverbush

*Cephalanthus occidentalis*. — *Family*, Madder. *Color*, white. *Leaves*, opposite or in threes, with short stipules between, oval or broadly lance - shape, 3 to 5 inches long, on channeled petioles, entire, but wavy - margined, pointed, bright green above, paler below. *Calyx - tube*, 4 - lobed. *Corolla*, a slender tube, hairy within, 4 - parted, at first white, then brown, its lobes tipped with black. *Stamens*, fastened to the tube of the corolla. *Pistil*, long, extending far out of the flower, with a button - like stigma. *Flowers*, gathered into a close head, 1 inch in diameter, around a fleshy receptacle, the head long - peduncled, springing from the leaf - axils. July and August.

This bush has unusually strong roots and grows beside ponds and streams, often quite in water, its lowest stems being immersed. Height, 5 to 10 feet. Bark rough, gray, spotted on the older stems. A handsome shrub, common; much prized and cultivated in Europe.

### Tartarian Honeysuckle

*Lonicera tartárica*. — *Family*, Honeysuckle. *Color*, white or light pink. *Calyx*, tubular, with 5 short teeth. *Corolla*, funnel - form, with the border deeply 5 - lobed, three of the lobes rather larger than the other two. *Bracts* underneath the flowers long and narrow. *Flowers*, in pairs from the axils of one of two opposite leaves. *Fruit*, deep orange or red berries, united at base.

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*Leaves*, thin, ovate, slightly heart-shape at base, acute or obtuse at apex. May and June.

A species escaped from cultivation, now become wild in sheltered, often rocky places, from Maine to New Jersey and westward to Kentucky. Other species will be found in the Yellow Group.

### Snowberry

*Symporicápos racemósus*.—*Family*, Honeysuckle. *Color*, whitish. *Calyx*, swollen at base, with 5 short teeth. *Corolla*, bell-shape, the limb with 5 spreading lobes bearded inside. *Stamens*, 4 or 5, joined to the corolla. *Fruit*, a snow-white, waxy berry. *Flowers*, one or two, or a few clustered in the axils. *Leaves*, elliptical or broad in the middle, opposite, short-petioled. June to August.

Rocky shores and dry river-banks. A shrub, low and branched, under 4 feet in height. Often cultivated, but native in the northern States.

### Hobble-bush. Witch Hobble. Moosewood

*Vibúrnum alnifólium*.—*Family*, Honeysuckle. *Color*, white. *Calyx*, 5-toothed. *Corolla*, 5-lobed. *Stamens*, 5. *Stigmas*, 3. *Flowers*, like those of the garden hydrangea, arranged in flat cymes, those around the border neutral, without stamens and pistils, with large, flat corollas. *Fruit*, a crimson drupe, becoming darker when ripe. The winter leaf-buds are without covering. *Leaves*, opposite, nearly orbicular, serrate, pinnately veined, slightly heart-shape at base, pointed at apex, with short petioles, unevenly divided by the midrib, rusty-scurfy along the veins underneath.

A shrub, reaching the height of 10 feet, with purplish bark. Found in cold, wet woods, from New England to North Carolina, where it ascends into the mountains. The lower, drooping branches often take root, making loops to trip up the careless pedestrian.

### Cranberry Tree. High Bush Cranberry. Pimbina

*V. Opulus*, var. *americánum*.—*Color*, white. *Flowers*, in cymes like the last, those along the margin with broad, flat corolla-lobes, neutral, the cymes 3 to 4 inches across. *Fruit*, round or oval, bright red drupes, edible, sour, like cranberries, whence the name. *Height*, 10 feet or less. *Leaves*, 3-lobed, strongly palmately veined, truncate at base, the lobes coarsely toothed near their

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apex, smooth or with a few hairs along the veins underneath, petioled, opposite. Two glands appear at the top of the petioles.

Found along streams and in woods from Maine to Pennsylvania and westward. Cultivated and all the flowers made into showy, neutral blossoms, this shrub becomes the garden snowball tree, or guelder rose. In this case the cyme becomes a ball.

### Dockmackie. Arrow-wood

*V. acerifolium*.—Color, white. In this species the *flowers* are all perfect, none being neutral and larger than the others. They make a cluster, or cyme, with long peduncles, each flower pedicelled, the cyme 1½ to 3 inches across. *Fruit*, a drupe, first crimson, then turning a bluish black. *Leaves*, opposite, broadly triangular, 3-lobed, palmately veined, lobes pointed, spreading, coarsely and deeply toothed, downy on both sides when young, petioled, with bristly stipules. Very deep crimson in fall. May and June.

A shrub, 3 to 6 feet high, with grayish, slender branches, found in cool, thin woods, along roadsides, in dry soil, in all the Atlantic States to North Carolina, and westward.

### Withe-rod. Wild Raisin. Appalachian Tea

*V. cassinoides*.—Color, white. *Flowers*, many, making large, compound, terminal cymes, peduncled, slightly fragrant. *Leaves*, thick, oval or oblong, mostly entire, 4 to 9 inches long, narrowing at base into a short petiole, pointed at apex, scurfy on the upper surface. *Fruit*, pink at first, then blue black, with a bloom. June and July.

A shrub from 3 to 12 feet high, with grayish branches, found in swamps or moist woods, or along the banks of streams, from Maine to North Carolina and westward.

### Downy Arrow-wood

*V. pubescens*.—Color, white. *Flowers*, all perfect, in cymes, with peduncles. *Fruit*, almost black. *Leaves*, ovate, rather broad, coarsely dentate, pinnately veined, the veins ending in the teeth, very downy on the under sides, somewhat hairy above, on short petioles or none, 1½ to 3 inches long. June and July.

A species found in rocky ground, limestone ridges and banks, from Maine to Georgia and westward, common among the Alleghany Mountains. 2 to 5 feet high.

### Arrow-wood

*V. dentatum*.—Color, white. *Flowers*, all perfect, in flat cymes, peduncled, 2 to 3 inches broad. *Leaves*, pale green, broadly

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ovate, coarsely and sharply toothed, with prominent, straight veins, somewhat heart-shape at base, pointed at apex, on slender petioles. Hairy tufts fill the axils. May and June.

A tall shrub, 5 to 15 feet high, with grayish bark, common in wet soil from Maine to Georgia, westward to western New York. Fruit a small drupe, blue or black.

### **Black Haw. Stag-bush. Sloe**

*V. prunifolium*.—A shrub or small tree, with flowers in compound, sessile cymes, 2 to 4 inches broad. Leaves, small, oval, petioled, finely serrate, lower surface smooth. Fruit, a black, oval drupe, sweet, and edible.

Found in moist or dry soil from Massachusetts to Florida, westward to Michigan.

### **Elder. Elderberry**

*Sambucus canadensis*.—Family, Honeysuckle. Color, white. Calyx, tubular, with very small teeth. Corolla, urn-shape, with 5 spreading lobes at the top. Stamens, 5, joined to the base of the corolla. Stigmas, 3. Flowers, in large, flat cymes on a long peduncle. Fruit, a deep purple drupe. Leaves, compound, with 5 to 7 leaflets, pointed, serrate, some 3-divided. Stem, scarcely woody, and young branches filled with pith. June and July.

A showy plant, with soft, misty flowers, followed by sweetish black berries. The berries have medicinal properties, and are made into elderberry wine. When bruised the leaves have an unpleasant odor. Found in wet soil, beside streams, along roadsides, from New England to Florida and westward.

### **Red-berried Elder**

*S. racemosa*.—Taller than the last, with warty bark. Flowers, in panicled clusters, small, turning brown when dried. Leaves, pinnate, 5 to 7 leaflets, ovate to lance-shape, finely serrate, petioled, opposite, pointed, the midrib sometimes one side of the middle at base. Fruit, bright red. Stem, filled with brown pith. May.

Rocky woods and open places, from New England to Florida and westward. Fruit ripe in June.

### **One-seeded Bur Cucumber**

*Sicyos angulatus*.—Family, Gourd. Color, whitish. Flowers, of two kinds, the pistillate in roundish, peduncled heads; stamine, in corymbs or clusters from the same leaf-axils on very long

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peduncles. *Petals*, 5, large, united below, with spreading border. *Stigmas*, 3. *Style*, 1. *Fruit*, a prickly, bur-like receptacle for a single seed. The prickles can be pulled off without breaking open the "cucumber." *Leaves*, roundish, broad, deeply heart-shape at base, 5-lobed or angled, the lobes very acute, margin wavy, toothed, sometimes 10 inches across.

A plant, climbing by means of 3-forked tendrils. Hairy, not pretty, sometimes a weed in shaded yards. The fruit of this Family is called a *pepo*. The melon, squash, cucumber, pumpkin and gourd are examples.

Dr. Coulter, speaking of a section in Indiana, says: "The single-seeded cucumber mats all bushes and vegetation within 10 feet of its roots into a thicket, or climbs up a neighboring tree to the distance of 63 feet."

### Wild Balsam-apple

*Echinocystis lobata* (name means "hedgehog" and "bladder," from the swollen, prickly fruit).—*Family*, Gourd. *Color*, greenish white. Staminate and pistillate flowers, separate, springing from the same leaf-axils, the former in compound racemes, often 1 foot long, the latter generally single, sometimes in pairs. *Fruit*, fleshy, oval, 2 inches long, covered with weak, slender prickles. *Corolla*, deeply 5-parted, united at base into a tube. *Calyx*, tubular. *Ovary*, 2-celled, 2 seeds in each cell. *Leaves*, thin, deeply 5-lobed, the lobe pointed, the margins distantly toothed, on petioles 1 to 3 inches long. July to October.

A smooth-stemmed, tall climber, reaching a height of 25 feet, climbing by means of 3-forked tendrils. Found in wet soil, as along rivers, from western New England to Pennsylvania. Often cultivated as a veranda climber.

### Marsh Elder. Highwater Shrub

*Iva oraria*.—*Family*, Composite. *Color*, greenish white. Pistillate and staminate flowers in the same head, the pistillate along the margin. Heads terminating the branches, forming long, leafy panicles, the narrow, bract-like leaves longer than the heads. *Leaves*, those below, opposite, fleshy, oval or lance-shape, coarsely toothed, 3-nerved, short-petioled or sessile. July to September.

Not a true shrub, but with shrubby stem at base. Reaching a height of 12 to 15 feet. Found along the coast in salt marshes and along muddy shores, from Maine to Florida and westward to Texas. The plant becomes more shrubby in the far South.

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### Groundsel Tree

*Baccharis halimifolia*.—Family, Composite. *Color*, whitish, sometimes with a yellow or purple tint. *Leaves*, wedge-shape, tapering at the base to short petioles, acute at apex, coarsely toothed; those on the main stem and large branches deeply toothed, those above and on the small branches entire. *Flowers*, all tubular, collected in loose heads, pistillate and staminate on different plants, the heads 1 to 5 in a panicle, on peduncles, terminating the branches. *Corolla*, in the fertile blossom long, narrow, thread-like; in the staminate, broader, 5-lobed.

After the plant has gone to seed, the pappus of the fertile flowers becomes long, full, and plumose, giving the shrub a conspicuous, hoary look in late autumn. It is a light-colored bush, 6 to 15 feet high, the only true shrub among the Composites, found growing plentifully in marine marshes and along sea-beaches from Massachusetts to Florida and Texas.

## VINES AND SHRUBS WITH YELLOW OR YELLOWISH BLOSSOMS

### Wild Yam-root

*Dioscorea villosa*.—Family, Yam. *Color*, pale greenish yellow. *Flowers*, of two kinds, the staminate with 3 or 6 stamens and 6-parted perianth; pistillate, with a 3-celled ovary which becomes, in fruit, a 3-valved, 3-winged capsule. Fertile flowers hang in drooping racemes; staminate, in long, drooping panicles, 3 to 6 inches long; all from the axils. *Leaves*, petioled, opposite or in whorls of fours, broad, heart-shape at base, very acute at apex, 9 to 11-nerved, thin, 2 to 6 inches long. June and July.

Among the twining vines which make dense thickets this is our only member of the Yam Family. Most of the species are tropical, of which four form a staple article of food for the half-civilized peoples of Africa and Malaysia. The fleshy rootstocks are eaten baked, boiled, or fried. These plants are cultivated in Japan, Siam, and the East Indies. *D. villosa*, our species, has a large, tuberous root. It is found in damp thickets from Rhode Island to Florida, and westward to Texas. 4,000 feet high in Virginia. Fruit remains on the vines all winter.

### American Mistletoe

*Phoradendron flavescens*.—Family, Mistletoe. *Color* of stems, yellowish; of berries, white. *Leaves*, opposite, leathery, thick, 1-ribbed, entire, oval or oblong, blunt, with short petioles, 1 to 2 inches long. *Staminate flowers*, composed of a 3-lobed calyx,

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and 1 stamen at the base of each lobe with a 2-celled sessile anther. *Pistillate flowers*, a single berry-like ovary, surrounded by a 3-lobed calyx. *Fruit*, a fleshy berry. *Flowers*, in axillary clusters. May to July.

Shrubs parasitic on trees, especially the tupelo and red maple, from central New Jersey southward. The mistletoe sold so much on our city streets at Christmas time is *Viscum album*, imported from England. It grows on many fruit and forest trees, especially the apple tree, being not specially injurious to them, the Lombardy poplar alone being exempt. It bears yellow flowers in February or March, and ripens fruit the next autumn. Bird-lime is derived from the viscid pulp of the berries. Birds are the propagators of this parasite, since they eat the berries and wipe their bills upon the branches of trees, leaving a seed to germinate. It was held sacred by the ancient Druids when found, as it seldom is, growing upon an oak.

### Dwarf Mistletoe

*Arceuthobium pusillum*.—*Family*, Mistletoe. *Color*, flowers so small as scarcely to display color. The plant is less than 1 inch long, consisting of roundish, somewhat branched, fleshy, smooth, yellowish-brown or greenish stems scattered over the host-plant, like excrescences. *Flowers*, when examined under the magnifying-glass, are seen to be of two kinds, the staminate with a 2 to 5-parted fleshy calyx, with an equal number of stamens, an anther sessile on each lobe, opening by a round slit; pistillate flowers, with a 2-parted calyx. *Fruit*, a fleshy, ovoid berry.

Found on certain deciduous trees, especially pine and larch, sometimes making "witches' brooms," on these trees at low altitudes, from New Jersey to Florida and westward.

### Common Barberry

*Berberis vulgaris*.—*Family*, Barberry. *Color*, yellow. *Leaves*, alternate, bristly toothed, inversely ovate, in tufts, springing from the axils of branched spines. From the center of the rosette of leaves drooping racemes of flowers spring. *Sepals* and *petals*, 6. *Bractlets* below the sepals. *Stamens*, 6. *Pistil*, 1. *Fruit*, a long, acid berry, containing one or two hard seeds. They are often preserved, and make a refreshing drink. May and June.

The stamens are curiously sensitive. Kolreuter was the first to discover the fact that when the filaments are touched the anthers bend toward the pistil and come in contact with

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its stigma, straightening up again soon after. This phenomenon is best seen in dry weather. It is a device to secure cross-pollination, a visit from an insect causing the anthers to shed their pollen upon its body, to be borne to another flower. The barberry is supposed to be injurious to wheat, being invested with a mildew (*Aecidium berberidis*), which in a different form becomes the rust (*Uredo*) of wheat. A law in Massachusetts once compelled farmers who cultivated wheat to cut down all barberry bushes near their fields. To those not interested in wheat cultivation, the yellow racemes of flowers and scarlet fruit of the barberry make it a welcome attendant of our drives, found, as it is, in exposed situations bordering woods and fields. Its range is throughout New England, as far north as Canada and Newfoundland. It keeps near the coast, in gravelly soil. Shrub 5 to 8 feet high, with grayish bark. It has been planted with success for hedges. It is used to tan leather and for a yellow dye.

### American Barberry

*B. canadensis*.—*Color*, yellow. *Leaves*, wavy-margined, toothed, not so bristly as the last. *Flowers*, in racemes, few, with petals notched at apex. June.

A shrub or small tree found in swamps of Virginia and southward.

### Fever Bush. Spice Bush. Benjamin Bush. Wild Allspice

*Benzoin aestivale*.—*Family*, Laurel. *Color*, greenish yellow. *Leaves*, alternate, 2 to 5 inches long, broad above the middle, pointed at apex, tapering to the base, short-petioled, entire, the midrib often dividing the leaf unequally, revolute and softly hairy along the margin, pale beneath, spicy and aromatic in odor and taste. *Stamens* and *pistils* in different flowers. *Calyx* of 6 sepals, greenish yellow, petal-like. *Corolla*, none. Sterile blossoms, with 9 stamens in 2 or 3 rows, all with large, 2-celled anthers, the inner row of filaments glandular at base. The *pistillate flowers* have a roundish ovary, surrounded by many rudimentary stamens. *Flowers*, peduncled, 3 to 6 in clusters, several such clusters forming a compound umbel which is surrounded by a 4-leaved involucre. *Fruit*, at first retaining the style in a little pit at its apex, dropping this when ripe, and becoming a large, red, oval drupe.

A graceful, tall bush, 4 to 12 feet high, smooth-stemmed, with brittle branches. The yellow flowers appear before the

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leaves. Found in moist woods from New England to Michigan and southward. To this Family the aromatic sassafras tree belongs, sometimes a shrub, with similar flowers.

### Witch-hazel

*Hamamelis virginiana*.—Family, Witch-hazel. *Color*, yellow. *Leaves*, alternate, straight-veined, simple, oval or ovate, wavy-margined, downy beneath. *Calyx*, 4-cleft, with bractlets underneath. *Petals*, 4, long, narrow, strap-shape, sometimes twisted. *Stamens*, short, 4 perfect and 4 without anthers. *Styles*, 2. *Fruit*, a 2-horned capsule. *Seeds*, 2 in each capsule, hard, black, tipped with white. *Flowers*, sessile, 3 or 4 in axillary clusters, with a scale-like, 3-leaved involucre underneath. August to October.

A slender shrub with crooked branches, sometimes attaining the size of a tree 10 to 30 feet high, but seldom growing like a tree with a single trunk. By blossoming in the fall, while the leaves are dropping, and maturing seed next summer, this plant reverses the seasons. The seeds, when ripe, are often ejected from the pod with considerable force—"sometimes," says Mr. Gibson, "to a distance of 40 feet." He writes: "I had been attracted by a bush which showed an unusual profusion of bloom, and while standing close beside it in admiration I was suddenly stung on the cheek by some missile, and the next instant shot in the eye by another, the mysterious marksman having apparently let off both barrels of his little gun directly in my face. I soon discovered him, an army of them—in fact, a saucy legion—all grinning with open mouths and white teeth exposed, and their double-barreled guns loaded to the muzzle and ready to shoot whenever the whim should take them."

Within my memory the twigs of this shrub have been used to detect the presence of water beneath the ground. I recall an old man solemnly stalking over my father's place with a magic witch-hazel wand in his hand. I followed him expectantly, hoping to see the rod tremble. Whether in this instance the old farmer's sign was distrusted, or whether the twig did not shake, I cannot remember. The well was never dug.

The witch-hazel, when properly prepared, is esteemed a valuable household remedy. (See illustration, p. 429.)

### Dyer's Greenweed. Woad-waxen. Whin

*Genista tinctoria*.—Family, Pulse. *Color*, yellow. *Corolla*, of the papilionaceous type, with a long keel. Of the *stamens*, 5



WITCH-HAZEL (*Hamamelis virginiana*)  
(See page 428)

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alternate are shorter than the others. *Calyx*, 2-lipped. *Pod*, flat, containing several seeds. *Flowers*, in elongated racemes. *Leaves*, simple, lance-shape, small. June and July.

Bushy plants, thornless, with a certain bright prettiness, found on roadsides and dry hills in poor soil. To this genus belongs the common broom of the old country.

### Scotch Broom

*Cytisus scoparius*.—Family, Pulse. *Color*, yellow. *Flowers*, papilionaceous, large, single or in pairs, in the axils, on long pedicels, making loose, leafy racemes. *Style*, long, projecting, incurved. *Leaves*, 3-foliate, small, smooth, sometimes simple.

A stiff, much-branched shrub, 3 to 4 feet high, found in sandy soil from Massachusetts to Virginia, southward.

### Shrubby St. John's-wort

*Hypéricum prolificum*.—Family, St. John's-wort. *Color*, yellow. *Leaves*, narrow, oblong or lance-shape, 1 to 2 inches long, dotted, obtuse at apex, numerous, making the shrub leafy from base to top. *Sepals*, 5. *Petals*, 5. *Stamens*, many, conspicuous, standing up from the wide-spreading petals. *Styles*, 3, and red pod 3-celled. *Flowers*, clustered at the ends of 2-edged branchlets. July to September.

A much-branched, bushy shrub, 1 to 5 feet high, found from New Jersey to New England and westward.

*H. densiflorum*.—*Leaves*, smaller than in the last, thickly crowded upon slender branches, very bushy toward the top. *Flowers*, small,  $\frac{1}{2}$  inch long, in compound cymes.

New Jersey pine barrens to Kentucky and southward.

### Poverty Grass. False or Beach Heather

*Hudsonia tomentosa*.—Family, Rockrose. *Color*, yellow. *Petals*, 5, falling after a day's time, much larger than the calyx. *Leaves*, bristly, awl-shaped, small, overlapping one another, closely packed on the stem. *Flowers*, very small, borne among the leaves near the tops of the branches; sessile or with short peduncles.

This plant grows a few inches high, in a close and bushy fashion, heather-like, in sand along the dunes or on the edges of pine woods.

*H. ericoides* differs from the last in that the flowers are borne on slender peduncles and the leaves are more loosely arranged. May and June.

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"In some parts the two species of poverty grass (*Hudsonia tomentosa* and *ericooides*), which deserve a better name, reign for miles in little, hemispherical tufts or islets, like moss scattered over the waste.

"In summer, if the poverty grass grows at the head of a hollow looking toward the sea, in a bleak position where the wind rushes up, the northern or exposed half of the tuft is sometimes all black and dead, like an oven-broom, while the opposite half is yellow with blossoms, the whole hillside thus presenting a remarkable contrast when seen from the poverty-stricken and the flourishing side."—Thoreau's *Cape Cod*.

Low, branched, tufted shrubs, looking like heather. In dry, sandy soil, in pine barrens, not far from the seashore.

A third species is found in the mountains of North Carolina.

### Yellow Passion Flower

*Passiflora lutea*.—Family, Passion Flower. Color, greenish yellow. Leaves, 3-lobed, the lobes entire; alternate, with petioles and stipules. Sepals, 5, united at base, colored, with a fringed crown at the throat. Petals, 5, joined to the calyx. Stamens, 5, their filaments united, making a tube below, which surrounds the long stalk of the ovary; separated above with large anthers. Fruit, a berry  $\frac{1}{2}$  inch in diameter. Flowers, 1 inch across, on jointed peduncles in the leaf-axils.

Moist thickets, Pennsylvania southward.

### Leatherwood. Moosewood. Wicopy

*Dirca palustris*.—Family, Mezereum. Color, light yellow. Leaves, alternate, oval or inversely ovate, nearly smooth. No corolla, but a colored, tubular, funnel-shape, 4-toothed calyx. 4 long and 4 short stamens, inserted on the calyx, stand out from the flower. Fruit, a reddish berry. The numerous flowers emerge before the leaves, from a thick, scaly bud, which remains as an involucre, and later gives rise to a leafy branch. April.

This shrub has exceedingly tough bark, which was once used for thongs by the Indians. The wood is soft, white, and brittle. Found in moist, rich woods in all the Atlantic States and westward.

### Swamp Privet

*Adelia acuminata*.—Family, Olive. Color, greenish yellow. Leaves, lance-shape to ovate, opposite or sometimes fascicled, on slender petioles 1 to 4 inches long. Flowers, small, appearing

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before the leaves, the pistillate in threes on a common peduncle; the staminate in fascicles from the leaf-axils of the preceding year.

In swamps and along river-banks from Illinois to Georgia and westward to Texas.

### Yellow Jessamine or Jasmine

*Gelséminum sempérvirens*.—Family, Logania. *Color*, bright, golden yellow. *Calyx*, 5-parted. *Corolla*, tubular, 1 to 1½ inches long, the border deeply 5-parted into broad lobes. *Stamens*, 5, with arrow-shape anthers. *Style*, 1. Short stamens and long style in one flower, corresponding to long stamens and short style in another. A high climber over trees. *Leaves*, small, shining, ovate or lance-shape, short-petioled, simple, evergreen. March and April.

This is one of the most beautiful of our vines, deservedly dear to the Southern heart, the profusion of bright, deliciously fragrant, axillary-clustered flowers, in shape somewhat like the Northern foxglove, contrasting finely with the richly colored evergreen leaves. Low grounds, from Virginia to Florida and Texas.

### Dodder. Love Vine

*Cúscuta Grondvii*.—Family, Convolvulus. *Color*, yellowish or whitish. *Leaves*, none.

Our commonest parasite, and very troublesome in clover and alfalfa fields, or wherever it obtains a hold. The seed—a coiled thread, a worm-like embryo—germinates in the ground. When the yellow stem which springs from this seed is 2 inches high, it reaches for any neighboring herb or shrub. Once in touch, it develops *haustoria*, or suckers, which penetrate the bark of the host, and thence draw the plant's juices, already assimilated, appropriating them for its own. The part in the ground now dies and falls away, leaving the plant wholly parasitic. It quickly entwines itself around the whole shrub, reaching out for others near by, and thus we often see tangled mats and masses of yellow threads in the woods, by the roads, everywhere. Under the magnifying-glass the small, cabbage-like flowers show 5 divisions of calyx and corolla, with a 2-celled ovary, and thus they are brought within the Family which includes the apparently most dissimilar morning glory and sweet potato. Being parasitic, the plants possess no green leaves, but yellowish scales in-

## VINES AND SHRUBS

stead. By twining too tightly around the bark they inflict additional injury. *C. Gronovii* varies considerably in size of blossom and coarseness of stem. It is a curious but repulsive plant. From Canada southward to Florida and Texas. (See illustration, p. 434.)

*C. Coryli* bears small flowers, few scales, and is parasitic on hazel and other shrubs or coarse herbs.

Southern New England to Nebraska.

*C. arvensis* has pale yellow stems with large, deeply fringed scales.

Dry soil from New York and Florida and across the continent.

In that singular book by Dr. Erasmus Darwin, *Loves of the Plants* (published in 1791), he says of the cuscutas:

“With sly approach they spread their dangerous charms,  
And round their victims wind their wiry arms:  
So by Scamander, where Laocoön stood,  
Where Troy’s proud turrets glittered in the wood,  
\* \* \* \* \* \* \* \*  
Two serpent forms, incumbent on the main,  
\* \* \* \* \* \* \* \*  
Ring above ring, in many a tangled fold,  
Close and more close their writhing limbs surround.”

### Trumpet Creeper. Trumpet-flower

*Tecoma radicans*.—Family, Bignonia. Color, orange and red. Leaves, pinnate, the leaflets numbering 9 to 11, one odd, terminal, in shape ovate, acute at apex, toothed. Corolla, trumpet-shape, large, 5-lobed. Calyx, 5-toothed. Stamens, 4. Flowers, clustered. July and August.

This plant, which is a troublesome weed in Ohio and other Western States, is cultivated with us. The corolla is large, trumpet-shape, flame-colored. Stems, strong, woody. The plant climbs by little rootlets springing from the stem, and so vigorously as to suffocate grape vines or whatever weaker plant lies in its way. Once established, it is very difficult to extirpate. The flitting humming-bird may occasionally be seen nesting among the branches and sipping nectar from the bright, trumpet-shaped blossoms. New Jersey to Florida and westward.



COMMON DODDER (*Cuscuta Gronovii*)

(See page 432)

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### Cross-vine

*Bignonia capreolata*.—Family, Bignonia. *Color*, orange outside, lemon within. *Calyx*, like a small cup with scarcely any teeth. *Corolla*, bell - shape, somewhat 2 - lipped, not deeply 5 - lobed. *Stamens*, 4, often with a rudiment of a fifth. *Flowers*, pedicelled, in cymes, numerous. *Leaves*, petioled, a pair of oblong or ovate leaflets, each stalked. A branched tendril springs from the tip of the petiole, and in the axils there are often stipule-like leaves. April to June.

Woody climbers, on trees reaching a height of 50 or 60 feet, in moist woods from Virginia to Florida and westward. If the stem be cut across, a cross-like figure is seen in the wood.

### Bush Honeysuckle

*Diervilla Lonicera*.—Family, Honeysuckle. *Color*, pale yellow at first, becoming deeper. *Leaves*, opposite, short-petioled, oval or elliptical, finely toothed, tapering at apex, round at base, slightly fringed along the margins. *Calyx-tube*, long, with 5 long, narrow segments above. *Corolla*, tubular, opening and spreading above into 5 narrow lobes. *Stamens*, 5. *Pistil*, with a long, projecting style and button - like stigma. *Flowers*, small, fragrant, 3 together, short-pedicelled, on a common peduncle, from the upper, opposite leaf-axils. *Fruit*, long, crowned with the calyx - teeth. *Stems*, grayish, somewhat 4-angled. June to August.

A pretty, low shrub, 2 to 4 feet high, found in rocky places, especially on the tops of mountains, from New England southward to North Carolina and westward.

The *Weigela* of our gardens, an early flowering shrub with red or yellow, showy flowers, is a Japanese species of *Diervilla*.

### Mountain Fly Honeysuckle

*Lonicera caerulea*.—Family, Honeysuckle. *Color*, pale greenish yellow. The specific name comes from the blue berry. *Leaves*, oval or inversely ovate, 1 to  $1\frac{1}{2}$  inches long, blunt at apex, rounded at base, slightly fringed around the margins, opposite, pale green beneath. *Flowers*, tubular, the *calyx* very small, the *corolla* with a 5-parted spreading border, in pairs in the axils, with short peduncles. In fruiting the two ovaries become united into one and produce a double, roundish, blue black, edible berry. June.

Low grounds, swamps or bogs, from Pennsylvania to California and northward.

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### American Fly Honeysuckle

*L. canadensis*.—*Color*, pale greenish yellow. *Leaves*, thin, downy beneath when young, on somewhat hairy, short petioles, opposite, oblong or ovate, fringed around the margins. *Calyx*, with very short teeth. *Corolla*, funnel-form, with a slight, spur-like swelling at base,  $\frac{1}{4}$  of an inch long, with 5 nearly equal lobes. *Stamens*, 5. *Fruit*, not united, of 2 separate, bright red berries. April to June.

Erect, 3 to 5 inches high. In cold, moist woods from Pennsylvania to Michigan, Wisconsin, and northward.

### Swamp Fly Honeysuckle

*L. oblongifolia*.—*Color*, yellow, sometimes purplish within. *Corolla*, deeply 2-lipped. *Flowers*, in pairs, at the top of a long peduncle, from the upper axils. Minute bracts under the pair of flowers. *Berries*, quite separate, or slightly united at base, red or crimson. *Leaves*, 1 to 2 inches long, opposite, oblong or lance-shape, downy at least when young. May and June.

Swamps, especially in larch and arbor-vitæ woods, from Maine to western New York.

The Tartarian honeysuckle (*L. tartarica*), so well known in our gardens, may be found escaped from cultivation and growing wild on sheltered banks from Maine to New Jersey and westward.

### Hairy Honeysuckle. Rough Woodbine

*L. hirsuta* (this and the two following species are woody, climbing vines).—*Color*, orange yellow. *Calyx-tube* with 5 small teeth. *Corolla*, clammy from minute glands on the outside; a tube more than  $\frac{1}{2}$  inch long, with the lower lip narrow, and covering the other in bud; the upper divided into 4 roundish lobes. *Stamens*, 5, protruding. *Stigma*, round, green, terminating a long style. *Berries*, bright orange, with the calyx-teeth left upon them. *Flowers*, sessile, in whorls of about 6, from the upper leaf-axils, forming an interrupted leafy spike. *Leaves*, dull green, large, broadly lance-shape or oval, rounded at base, hairy along the margins and midribs, the upper pair completely united, the others on short, winged petioles. June and July.

A hardy climber, in woods, around rocks, reaching a length of 20 to 30 feet. Branches are reddish. Leaves large and coarse, and stems softly hairy. Vermont to Michigan, south to Pennsylvania.

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### Trumpet Honeysuckle

*L. sempervirens* is often cultivated. It is found wild from Connecticut southward. *Flowers*, scentless, with tubular corollas 2 inches long, red outside, yellow within, in spiked whorls. *Berries*, deep orange red. The upper *leaves* join around the stem; the lower are on short petioles; all bright, shining, evergreen, smooth, oblong or broadly oval. A twining and climbing shrub.

*L. glaucescens*.—*Color*, pale yellow. *Leaves*, softly downy along the veins underneath, sessile, the upper pair united and surrounding the stem. *Corolla*, 2-lipped, swollen at base, about 1 inch long, with stamens and style protruding, covered with soft, small hairs. May and June.

Woods, Pennsylvania to Nebraska and northward.

## VINES AND SHRUBS WITH PINK OR RED BLOSSOMS

### Hardhack. Steeple Bush

*Spiraea tomentosa*.—*Family*, Rose. *Color*, pink, rarely white. *Calyx*, 4 to 5-lobed. *Corolla*, of 4 or 5 petals inserted upon the top of the calyx-lobe. *Stamens*, many. *Flowers*, clustered in a dense terminal panicle composed of separate, short racemes. *Leaves*, ovate or oval, 1 to 2 inches long, serrate, short-petioled, with the stem and petioles covered with a reddish, thick wool. *Stem*, stiff and brittle. July to September.

Low grounds, roadsides and fields, New England to Georgia and westward to Kansas. The leaves are covered with white hairs underneath.

### Purple Flowering Raspberry

*Rubus odoratus*.—*Family*, Rose. *Color*, deep pink. *Leaves*, alternate, 3 to 5-lobed, the middle lobe longer than the others, all finely toothed, acute. *Calyx*, 5-parted, its lobes tipped with a long, fine point; very clammy and hairy, often reddish. *Petals*, 5, large. *Flowers*, 2 inches across, several together, clustered. *Fruit*, like a raspberry, of many small grains, flat and reddish, falling away from the receptacle, not edible. Stem and petioles sticky with glandular hairs, without thorns. June and July.

A shrub 3 to 5 feet high. From northern New England to New Jersey and Georgia, west to Michigan. (See illustration, p. 438.)

### Swamp Rose

*Rosa carolina*.—*Family*, Rose. *Color*, pink. *Leaves*, of 5 to 9 leaflets, very finely toothed, acute at apex, dull green above,



PURPLE FLOWERING RASPBERRY (*Rubus odoratus*)  
(See page 437)

## VINES AND SHRUBS

paler beneath, with narrow stipules. *Calyx*, an urn-shape tube, narrowed at the top, within which, attached to its lining, are the numerous pistils which form the achenes in fruit. The "rose-hip" is the calyx-tube grown fleshy. This species is often 7 feet high, with curved, strong spines, and pretty, rose-colored, 5-petaled blossoms. June to September.

Found on the edges of swamps and streams in all the Atlantic States and westward.

### Dwarf Wild Rose

*R. lúcida*, generally low, but sometimes 4 or 5 feet high, has coarsely toothed, dark green, shining, smooth leaves parted into about 7 leaflets, and flowers in corymbs or single. Spines hooked, stout. The outer sepals are often lobed.

Found in swamps and wet places from Pennsylvania and New York northward. This species is more fragrant than the preceding. It grows sometimes in masses an acre in extent. One bush aglow with blossoms is a pretty sight. In autumn the leaves turn a rich yellowish brown, and the crimson fruit is conspicuous.

### Pasture Rose

*R. húmílis*.—A low, bushy species, with small but vicious thorns standing straight out from the stem. *Leaflets*, 5 to 7, thin, coarsely serrate, with narrow stipules. *Flowers*, single, large, 2 to 3 inches across. *Calyx* and *pedicels*, glandular. *Petals*, notched, wide open. May to July.

Our commonest species, found, generally low and straggling, in dry, rocky fields and woods from Maine to Florida and Louisiana and westward. A double form is found in Pennsylvania and New Jersey.

*R. nítida*.—A low bush, not over 2 feet high, with stems and branches covered densely with small, weak prickles. *Leaflets*, 5 to 9, with broad stipules at base of petioles, bright green, narrowly oblong, pointed at each end. June and July.

The deep pink buds of our wild roses are even prettier than the open flowers, which quickly fade when picked and drop their petals. Their perfume is more delicate than the garden roses. This species is found in low grounds from Massachusetts northward.

### Sweetbrier. Eglantine

*R. rubiginósa* is prized not so much for its small, pale blossoms as for the delicate fragrance given out by its leaves. These are

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divided into doubly serrate, oblong to ovate leaflets, and are downy, covered with small, dark glands which exhale the pleasant aroma. *Branches*, very prickly. June to August.

When the dew is upon the sweetbrier rose, or after a shower, the atmosphere around is filled with the fragrance. Often cultivated, but found also in woods from New England to South Carolina, westward to Tennessee.

### Dog Rose

*R. canina*.—A species naturalized from Europe, whose *stem*, but not branches, is furnished with stout, recurved thorns. It reaches a height of 10 feet, and is often straggling in its growth. *Flowers*, single or 2 or 3 together, a pale pink, fading to almost white. *Leaflets*, small, 5 to 7, with prominent stipules sharply serrate. *Petioles* armed with a few weak prickles. June and July.

Along roadsides, in waste places, on banks of rivers in Pennsylvania, New Jersey, to Tennessee.

The following bit of verse shows how the original white rose became pink:

"As erst in Eden's blissful bowers  
Young Eve surveyed her countless flowers,  
An opening rose of purest white  
She marked with eye that beamed delight.  
Its leaves she kissed, and straight it drew  
From beauty's lips the vermil hue."

### Climbing or Prairie Rose. Michigan Rose

*R. setigera*.—One climbing species should be noticed, escaped from cultivation in New England and found wild in our prairies. It climbs by means of its hooked prickles. *Leaflets*, generally 3, sometimes 5, serrate but not bristly. *Flowers*, 2½ inches across, several together, in corymbose clusters, with peduncles.

### Bristly Locust. Rose Acacia

*Robinia hispida*.—Family, Pulse. *Color*, deep rose. *Flowers*, large, with papilionaceous corolla, in drooping axillary racemes, showy in this species, not fragrant. *Leaves*, pinnate, with one odd leaflet.

A shrub from 3 to 8 feet high, indigenous south of Virginia, cultivated in the Northern States.

### Common Locust. False Acacia

*R. Pseudo-Acacia* is a tree familiar to inhabitants of Long Island and other places around New York, and a favorite on account of

## VINES AND SHRUBS

the sweet fragrance emitted by its delicate racemes of blossoms in early summer.

The lightly waving, fine leaflets of the thick foliage, with the drooping racemes of white flowers, make an exquisite forest picture.

A curious provision for the protection of tender buds is furnished by trees and shrubs of this genus. The base of the present leaf-stalk is hollow, like a thimble, and it fits over the bud. One has only to pluck a locust leaf to discover next season's bud forming under it and growing in as perfect a nest as could be devised. It is a common opinion among farmers that lightning will strike a locust tree quicker than any other, and that, therefore, one planted near a house may serve as a lightning-conductor. The numerous charred trunks of locust trees observed in a walk in the forest would seem to bear out this idea.

### Purple Azalea. Pinxter Flower. Swamp Pink

*Rhododendron nudiflorum*.—Family, Heath. Has bright pink flowers appearing very early in April, before the leaves of the shrub are fairly out.

This is similar to the white azalea, without the sticky calyx-tube, and less fragrant than *R. viscosum* (p. 411.) Both fill our swampy woods with beautiful bloom in their season. Upon each appear "May-apples," an edible, pulpy excrescence, formerly supposed to be the work of insects, now admitted to be a legitimate growth, a modified bud. Says Mr. Gibson, in his inimitable way:

"The May-apple, which hangs among the clusters of the wild, fragrant, pink swamp azaleas, has no mission in the world except to melt in the mouth of the eager, thirsty small boy. He knows little and cares less what it really is. He only knows that it beckons him as he passes through the May woods, and its cool, translucent, pale-green pulp is like balm to his thirsty lips. How it makes the corners of my jaws ache with thirsty yearning as I think of it! and what a pink whiff of the swamp May-blooms its memory brings!"—*Sharp Eyes*.

### Rhodora

*R. canadense*.—Flowers appear earlier than the leaves. *Corolla*, of a purplish pink or rose color. *Tube*, short, hardly any, the lobe 2-lipped. May and June.

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A low shrub, not more than 3 feet high, found in swamps and on damp hillsides from Pennsylvania and New Jersey northward.

### Sheep Laurel. Lambkill. Wicky

*Kalmia angustifolia*.—Family, Heath. This is a low shrub, 1 foot or more high, with narrow, evergreen leaves in whorls of threes. Flowers, from the axils, in corymbs of a deep crimson color, the dark anthers which nestle in their pockets having the effect of spots.

Thoreau always speaks of it as "lambkill." He says (June 13th): "The lambkill is out. I remember with what delight I used to discover this flower in dewy mornings. All things in the world must be seen with the morning dew upon them, must be seen with youthful, early opened, hopeful eyes."

And this is how he writes of the flower at evening: "How beautiful the solid cylinders of the lambkill now, just before sunset—small, 10-sided, rosy-crimson basins about 2 inches above the recurved, drooping, dry capsules of last year!" Most people would not agree with him that it is "handsomer than the mountain laurel."

Supposed to be poisonous to young animals and hurtful to cattle and horses. Stags eat the leaves, digging them from under the snow. The Indians make a decoction of kalmia leaves (says Dr. Barton) with which to commit suicide.

Atlantic States to Georgia.

### Pale Laurel

*K. polifolia*, with its mostly opposite, narrow, long leaves, whitish underneath and turned back on the margins, and its few terminal rosy flowers on long, red stalks, is to my mind prettier than Thoreau's lambkill.

A straggling bush, 1 foot high, growing in swamps, almost in water, with the cotton grass and andromeda. Newfoundland, southward to Pennsylvania and westward. (See illustration, p. 443.)

### Black Whortleberry or Huckleberry. High Bush Huckleberry

*Gaylussacia baccata*.—Family, Heath. Color, pink or red. Leaves, entire, alternate, ovate, with short petioles or none, profusely dotted underneath with resinous, yellow spots, 1 to 2 inches long. Calyx, resinous-dotted, 5-pointed, the points re-



PALE LAUREL (*Kalmia polifolia*)  
(See page 442)

## HARPER'S GUIDE TO WILD FLOWERS

maining and crowning the ripened berry. *Corolla*, bell-shape, contracted above, 5-parted, small. *Stamens*, 10, the anthers opening by a pore at the apex. *Fruit*, a black, berry-like drupe formed by the clinging of the calyx to the ovary, 10-celled, each cell containing a bony seed. Many of these fail of coming to perfection, only 2 or 3 maturing. May and June.

A much-branched shrub, 1 to 3 feet high, in dry or sandy soil, woods or thickets, along the Atlantic coast and westward to Wisconsin and Kentucky. Fruit ripe in July and August. This is the common black huckleberry of the markets, a glossy-black, hard-seeded fruit. There are many varieties, one with larger berries, one with leaves and berries covered with a blackish bloom.

Of the Genus *Gaylussacia* there are nearly 80 species, some of them trees, most of them bearing edible berries.

Whortleberry means hart's-berry, from the Saxon *heort-berry*. Along the Atlantic seaboard there are but 3 species, not confounding them with blueberries, which are now considered a separate genus. The leaves of all turn bright red in fall, and are among those shrubs which help to cover the fields, pastures, and roadsides with masses of fine color.

### Blue Tangle. Dangleberry

*G. frondosa* is a species with large, pale green, blunt-pointed leaves and flowers hanging or *dangling* from long, slender peduncles in irregular clusters. *Fruit*, round, large, bluish black berries with a whitish bloom, ripening later than the preceding.

One of the sweetest and finest of these fruits, found growing on bushes in moist woods or by the sides of lakes or slow streams, along the coast of New England southward, in the mountains of Pennsylvania—where it attains its greatest perfection—to the Gulf. (See illustration, p. 445.)

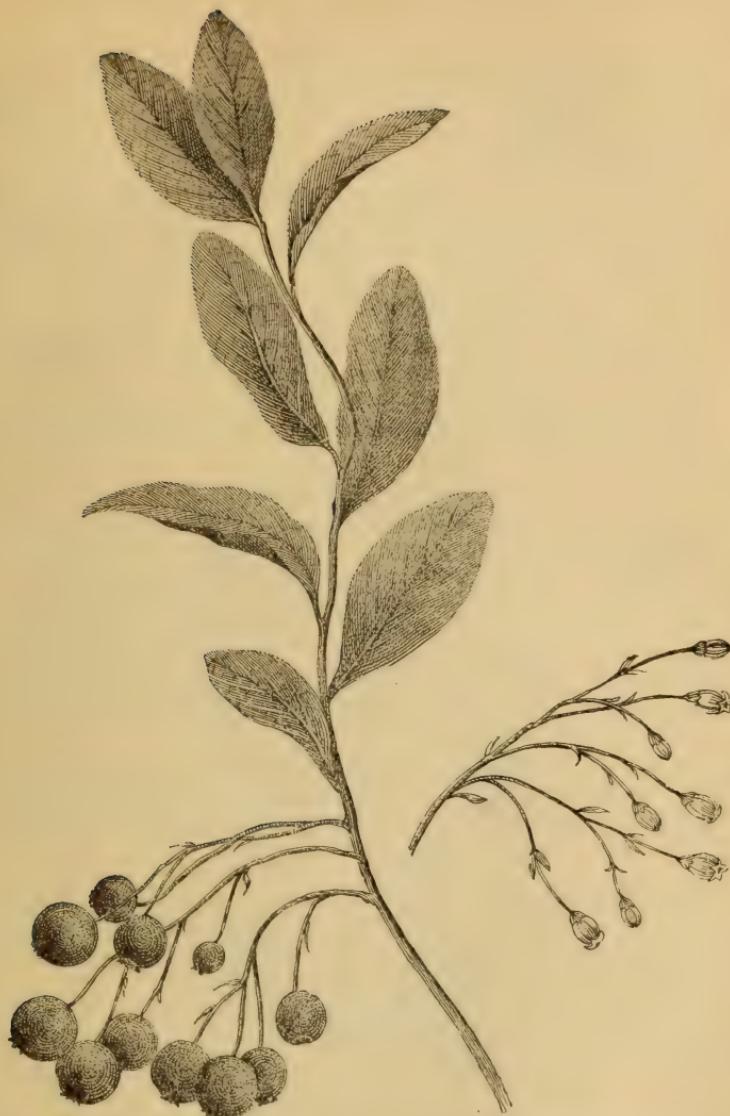
### Dwarf Huckleberry

*G. dumosa* is a branching bush 1 to 5 feet high, with creeping base and hairy, glandular stems. *Flowers*, 5 in a cluster, in June. *Corolla*, large, waxy white, sometimes tinged with pink. *Anthers*, brown, divided nearly to their base, on white filaments. *Shrub*, resinous-dotted. The round, black fruit is rather insipid.

In sandy swamps all along our coast.

### Blueberry

*Vaccinium virgatum*.—Family, Heath. *Color*, pink or reddish. *Flowers*, open bell-shape, in clusters on naked branches. *Berries*,



BLUE TANGLE. DANGLEBERRY. (*Gaylussacia frondosa*)  
(See page 444)

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large, covered with blue bloom, 10-celled, flattened. The younger, reddish berries and maturer blue or black grow together in such numbers that the plant often appears to have more fruit than leaves. *Stamens*, 8 to 10. *Leaves*, pale green, broadly elliptical, thin, shining above, acute and finely toothed.

A bush 2 to 3 feet high, one of our commonest and best species, furnishing sweet, delicious fruit in July and August. In swamps and sandy soil of pine barrens from New Jersey to Florida.

### Low Pale Blueberry

*V. vacillans*.—*Calyx*, reddish, and *corolla* yellow tinged with red. A smooth species with greenish yellow branchlets. *Berries*, blue, with a bloom, ripening late.

Dry fields and woods from New England to Michigan and southward.

### Spreading Dogbane

*Apocynum androsaemifolium*.—*Family*, Dogbane. *Color*, pale or deep pink. *Leaves*, opposite, oval, pointed, often with red petioles and veins. *Calyx*, 5-parted. *Corolla*, 5-lobed, bell-shape, with triangular bodies below the throat, opposite the lobes. *Stamens*, 5, with short filaments situated on the base of the corolla. *Stigma*, sessile, 2-lobed. *Fruit*, a long and slender pod. *Seeds*, furnished with a tuft of long, silky hairs. *Bark*, composed of tough fibers. *Flowers*, few and small, like tiny bells in terminal cymes, fragrant.

A loosely branched, shrub-like perennial herb, 1 to 4 feet high, in fields growing in light, moist or dry soil, from New England to Georgia and westward. (See illustration, p. 447.)

### Cypress Vine

*Ipomoëa Quamoclit*.—*Family*, Convolvulus. *Color*, red. *Leaves*, pinnately dissected into thread-like, parallel lobes. *Corolla*, long, tubular, with a 5-parted, spreading border, one or two together, on long peduncles. June to October.

A twining vine, formerly more cultivated than now, the delicate stems twining around cords which were fastened to a ring at the top. Occasionally found wild in the South.

### Common Morning Glory

*I. purpurea*, in its varying shades of white, blue, or crimson, is sometimes reduced to a wild state, having escaped cultivation. Twining and leafy.



SPREADING DOGBANE (*Apocynum androsaemifolium*)  
(See page 446)

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### Wild Morning Glory

*I. hederacea*.—*Color*, white, pale blue, or pink. *Leaves*, heart-shape, 3-lobed, petioled. *Flowers*, 1 to 3 on long peduncles. *Calyx*, very hairy. July to October.

Like the well-known morning glory of our gardens, this species naturalized from Southern countries opens its flowers in the early morning, closing them before ten o'clock.

### Italian or American Honeysuckle or Woodbine

*Lonicera Caprifolium*.—*Family*, Honeysuckle. *Color* of trumpet-shape corolla, purplish or crimson outside, whitish within. The border is strongly 2-lipped, the upper lip consisting of 4 divisions, the lower of 1, narrow, turned down. *Flowers*, 1 to 1½ inches long, in terminal, sessile clusters. *Leaves*, the upper ones completely joined around the stem (*perfoliate*), the lower with short petioles or none, separate. *Fruit*, a cluster of red berries within the perfoliate leaf, making this a showy shrub in fall. May and June.

Escaped from gardens and growing wild from New York and New Jersey southward.

### Climbing Hempweed

*Mikania scandens*.—*Family*, Composite. *Color*, pink. *Leaves*, opposite, heart-shape, or triangular, pointed, toothed near the base, on long petioles. *Heads*, containing 4 flowers, all grouped in corymbose clusters. Under the heads are 4 involucral scales. July to September.

The only climbing Composite. It twines around bushes and forms a tangle of green leaves intermixed with pretty pink clusters of flowers. They have a way of lying flat over the tops of other bushes, forming areas of deep pink. As the flowers grow old, they become pale and ragged. They can be seen in almost any wet place on Long Island, in New Jersey, to Kentucky and southward, keeping rather near the coast. The leaves wilt quickly after being picked. (See illustration, p. 449.)

## VINES AND SHRUBS WITH BLUE OR PURPLE BLOSSOMS

### Pipe Vine. Dutchman's Pipe

*Aristolochia macrophylla*.—*Family*, Birthwort. *Color* of tube, greenish yellow; of limb, brownish purple. *Calyx*, tubular, bent and curved like a Dutch pipe, 1½ inches long swollen below, nar-



CLIMBING HEMPWEED (*Mikania scandens*)

(See page 448)

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rowed above, with a short, somewhat 3-lobed border. *Corolla*, none. *Stamens*, 6, each pair of anthers joining under one of the 3 short, thick, stigmatic lobes of the pistil. *Flowers*, drooping, on axillary peduncles, a bract clasping the base of the peduncles. *Leaves*, broad, 6 to 15 inches, roundish or kidney-shape, on petioles 1 to 4 inches long, downy beneath when young, smooth when older. May.

Cultivated and a favorite twining veranda vine in the Northern States, indigenous in rich woods from Pennsylvania southward.

### Woolly Pipe Vine

*A. tomentosa*.—*Leaves*, very veiny and woolly, on stout, downy petioles. *Flowers*, similar to the last, but larger, with a yellowish tube and purplish limb, 3-lobed, axillary, on downy peduncles. May and June.

A Southern species, found in rich woods from Missouri and southern Illinois to Florida and Alabama.

### Whorled Clematis. Purple Virgin's Bower

*Clématis verticillaris*.—Family, Crowfoot. *Color*, blue purple. *Petals*, small or none. *Sepals*, large, thin, with prominent veins, widely spreading, giving the purplish color to the flower. Outer filaments often flat, like small petals. *Peduncles*, long, springing from the axils of opposite leaves, or terminating the branches, bearing a single flower. *Fruit*, of many long, plumose styles. *Leaves*, trifoliate on long and slender petioles, the leaflets entire or slightly toothed, somewhat heart-shape, sometimes lobed. May and June.

A woody-stemmed climber or trailing vine found in rocky woods, especially in limestone districts, from Virginia northward. If one comes across this climber in the woods of Connecticut, as I have done, he has found a real treasure, a rare and beautiful flower.

### Leather Flower

*C. Viorna*.—No *petals*, but purple *sepals*, 1 inch long, thick, leathery, making a bell-shape flower with recurved tips. *Leaves*, pinnate, consisting of 3 to 7 leaflets. The upper leaves may be entire. *Styles*, brownish, very plumose, 1 inch long. May to July.

A climbing plant reaching 10 feet in length, found in rich soil from Ohio, West Virginia and Pennsylvania to Georgia. Found 4,000 feet high in Virginia.

## VINES AND SHRUBS

### Marsh Clematis

*C. crispa*.—*Flowers*, purple, bell-shape, 1 to  $1\frac{1}{2}$  inches long, the tips of the *sepals* deeply curved backward. No *petals*. *Fruit*, silky. *Leaves*, pinnate, mostly 3-divided, the leaflets often 3-parted. May to August.

A marsh species found in Virginia and southward.

### Shrub Yellow-root

*Zanthonhiza apifolia*.—*Family*, Crowfoot. *Color*, dull purple. *Petals*, smaller than the sepals, which are petal-like and give the color to the flower. *Stamens*, 5 or 10. *Pistils*, 5 to 15. *Flowers*, small, on short pedicels, 2 or 3 together, making long spikes or compound racemes along the slender branches. *Leaves*, on slender, long petioles, pinnate or bipinnate, the leaflets being again divided, all doubly serrate, pointed, of a glossy green. April and May.

Low, shrubby plants, 1 to 2 feet high, with yellow bark and root, both very bitter to the taste, found along shaded banks of streams from southwestern New York and Pennsylvania southward.

### Sweet-scented Shrub. Strawberry Shrub. Carolina Allspice

*Calycanthus floridus*.—*Family*, Calycanthus. *Color*, brown or purplish. *Petals* and *sepals* many, joined to the top of the calyx-tube, narrow, thick. *Stamens*, many, some of them without anthers. *Pistils*, springing from within the calyx-tube. This cup enlarges, and when ripe, incloses the achenes. *Flowers*, single, at the ends of leafy shoots. When crushed they give out the fragrance of a strawberry. *Leaves*, opposite, entire, oval, downy underneath, smooth above, dark green. April to August.

A shrub 4 to 8 feet high, thickly branching, known in the North mostly as a cultivated garden shrub; indigenous from Virginia to North Carolina and westward, growing in rich soil on hillsides.

*C. fertilis*.—A similar species with unscented flowers, found in the Alleghany Mountains. Its fruit is said to be poisonous to sheep.

### Climbing Fumitory. Mountain Fringe

*Adlumia fungosa*.—*Family*, Fumitory. *Color*, white or purplish, sometimes pinkish. *Sepals*, 2, scale-like. *Petals*, 4, irregular, in 2 pairs, double-spurred, the inside pair narrower than

## HARPER'S GUIDE TO WILD FLOWERS

the other, all united and becoming sponge-like, inclosing the pod. *Stamens*, 6, their filaments in pairs above, united into a tube below. *Pod*, 1-celled. *Leaves*, alternate, thrice-pinnate, the delicate leaflets divided into very small lobes, pale green underneath, thin, on slender petioles by which the plant climbs. *Flowers*, in leaf-axils, drooping, panicled. June to October.

A lovely plant, weak-stemmed, climbing over shrubs and herbs, in wet grounds or recently burned-over woods, from New England to Michigan and southward to North Carolina, where it may be found in the mountains.

### Blue Vetch

*Vicia Cracca*.—*Family*, Pulse. *Color*, blue, becoming purplish, occasionally white. *Calyx*, short, with unequal teeth. *Corolla*, papilionaceous. *Flowers*,  $\frac{1}{2}$  inch long in densely flowered racemes, not drooping, 1-sided, axillary, long-peduncled. *Leaves*, sessile, pinnate, of 10 to 12 pairs of sharply pointed leaflets, terminated by tendrils. June to August.

A climbing, herbaceous, perennial vine, softly downy along the stems, found not infrequently along roadsides and in borders of thickets or in fields, where its bright blue flowers are conspicuous. From New England to New Jersey, Kentucky, and westward.

### Hairy Vetch or Tare

*V. hirsuta*.—*Color*, pale purplish blue. *Flowers*, 3 to 6 together, on peduncles, arising from the axils, the raceme a little shorter than the leaves. *Pod*, hairy. *Leaves*, of 12 to 14 leaflets, terminated by 2 or 3 delicate tendrils, the leaflets cut square at apex, notched, nearly sessile. May to September.

A climbing vetch which may be known by prominent stipules, long-eared or toothed. Waste places and dry fields over the Eastern and Middle States.

*V. caroliniana*.—*Color*, whitish, the keel of the papilionaceous corolla tipped with blue. *Flowers*, small, less densely clustered than in the preceding racemes, shorter than the leaves, somewhat drooping. *Leaves*, of 4 to 9 pairs of linear, smooth, entire leaflets, terminating with one or more tendrils. May to July.

Trailing or climbing, stem slender, 2 to 3 feet long. River-banks from New England to Georgia, westward to Minnesota and Kansas.

## VINES AND SHRUBS

### Pea Vine

*V. americana*.—*Color*, purplish. This species has 4 to 8 flowers, rather large, in the raceme, which is shorter than the leaves, straggling. *Leaves*, 5 to 7 pairs ended by long tendrils, with stipules nearly  $\frac{1}{2}$  inch broad and sharply toothed. May to August.

Wet soil, as river-banks, from Virginia and Kentucky northward. Found 3,500 feet high in Virginia.

### Groundnut. Wild Bean

*Ápis tuberosa* (name means "a pear," from the shape of the tubers).—*Family*, Pulse. *Color*, brownish purple. *Calyx*, slightly 2-lipped, the 2 upper teeth short, the 2 lateral ones nearly invisible, the lower one long. *Corolla*, papilionaceous, with a broad, turned-back standard and scythe-shaped keel. *Flowers*, in short, thick racemes, on axillary peduncles, pleasantly violet-scented. *Leaves*, divided into 3 to 7 long, narrow leaflets, with small stipules. Leaves much longer than the raceme of flowers. *Stems*, slender, somewhat hairy, with a little milky juice, climbing and massing over bushes. *Pods* produce kidney-shaped beans variously and prettily marked and colored. July to September.

This plant bears strings of underground, edible tubers, joined by offshoots. It is of prolific growth, found in low, wet grounds and moist thickets from New England to Florida and westward.

### Wild Bean. Bean Vine. Kidney Bean

*Phasèolus polystachyus*.—*Family*, Pulse. *Color*, purple. *Calyx*, 5-toothed, the 2 upper divisions somewhat united. *Corolla*, papilionaceous, with a spirally coiled keel including the stamens and style. *Pod*, long, curved, 4 to 5-seeded, tipped with the base of the style. *Leaves*, 3-foliate, with roundish to ovate, pointed leaflets, 2 to 4 inches long. July to September.

Flowers in short or long racemes, often crowded. One of our prettiest climbers, overtopping shrubs and stout herbs, displaying handsome flowers and graceful leaves, making many rough and bare spots soft and beautiful. Roadsides, thickets, etc., from Connecticut to Illinois, southward to Florida.

The garden kidney or string-bean, *P. vulgaris*, was probably imported from South America by Spanish slave-traders.

From before the time when Daniel and his three friends begged for a diet of pulse (beans) in exchange for the king's table, this vegetable has been esteemed a valuable food.

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### Trailing Wild Bean

*Strophostyles helvola*.—Family, Pulse. *Color*, greenish white varying to purplish. *Flowers*, 3 to 5 in a head at the end of a peduncle which lengthens as the season advances. *Leaves*, pinnately 3-divided, on petioles shorter than the peduncles. *Leaflets*, broadly ovate, pointed at apex, rounded at base, smooth, thickish, with small, narrow stipules. July to October.

Stems hairy, somewhat branched, reclining, 2 to 8 feet long, but seldom climbing high. Following the coast from Massachusetts to Florida and westward to Texas, in sandy shores and along river-banks.

### Pink Wild Bean

*S. umbellata*.—*Color*, pink, with a purplish tinge, fading to yellowish. Much like the last, with slenderer stems, 1 to 5 feet long, downy with soft hairs. *Leaves*, divided into 3 leaflets, on short petioles with minute stipules. *Flowers*, in a head on long peduncles. Prostrate, not climbing. July to September.

New Jersey and Long Island, south to Florida, west to Louisiana.

### Butterfly Pea

*Clitoria mariana*.—Family, Pulse. *Color*, pale blue. *Corolla*, very large, handsome, 2 inches long. *Flowers*, 1 to 3 on short peduncles, axillary. *Leaves*, of 3 separate leaflets, each on short stalks, narrow, tipped with a little point, attended by small, narrow stipules. June to August.

The plant climbs by twining or is self-sustaining. Dry soil, on banks and hillsides, New Jersey and New York to Florida and westward.

### Hog Peanut

*Amphicarpa monoica*.—Family, Pulse. *Color*, purplish. *Corolla*, papilionaceous. *Flowers*, numerous, in nodding racemes. *Pod*, 1 inch long. *Leaves*, of 3 thin, delicate, ovate, sharply pointed leaflets. Low plants with twining stems covered with brown hairs.

Besides the ordinary flowers, there are lower ones on thread-like stems near the base, or underground, without corolla. These produce a one-sided, swollen, very fruitful pod. Hogs are fond of them and uproot them, from which the common name has arisen.

"If we carefully uproot the soil the peanut is soon disclosed

## VINES AND SHRUBS

—a small, 1-seeded, rounded pod, pallid, beset with fine brown hairs, and which not one person in a thousand of those who know this common plant has ever seen. These are the seeds that plant the soil for next year's vines, and are the fruits of queer little underground blossoms, bearing no more resemblance to those at the 'other end' than is seen in the pods."—W. H. GIBSON.

### Broom Crowberry

*Corëma Conràdii*.—Family, Crowberry. *Color*, purple and brown, from the stamens. *Leaves*, long, needle-like, densely clustered, especially at the ends of the branches. *Flowers*, staminate and pistillate, in terminal heads, surrounded by several scaly bractlets, without calyx and corolla. *Stamens*, usually 3, with long, purple, tufted filaments and brownish anthers, showy. *Style*, 3-divided, with, sometimes, toothed stigmas. *Fruit*, a small dry drupe, inclosing 3 or 4 nutlets. April and May.

A small, curious shrub, from 6 inches to 2 feet high, found in a few places near the coast, Long Island, New Jersey, and Massachusetts to Newfoundland, where it makes, says Thoreau, "pretty green mounds, 4 or 5 feet in diameter by 1 foot high—soft, springy beds for the wayfarer."

### Burning Bush. Wahoo

*Evónymus atropurpureus*.—Family, Staff Tree. *Color*, dark purple. *Calyx*, of 4 or 5 divisions, produced under a short, flat disk. From the edge of the disk arise 4 or 5 *petals*, roundish, spreading, and as many short stamens. At length the disk covers and adheres to the deeply lobed, crimson pod. *Flowers*, in loose clusters in the axils, long-peduncled. *Leaves*, oblong or ovate, sharply pointed at apex, acute at base, narrowly toothed, on petioles. June.

Cultivated for its brilliant pods in autumn, but growing wild from New York to Wisconsin and southward to Florida.

### Strawberry Bush

*E. americanus*.—*Color*, greenish purple. *Leaves*, opposite, sessile, thick, glossy green, 2 to 3 inches long, slightly hairy on the veins underneath. Parts of the flower in fives. The seeds, surrounded by red pulp (an aril), are attached to a crimson, rough-warty pod.

A shrub, 2 to 5 feet in height, irregular, very striking when in fruit. I have found it in New Jersey along banks of streams and drier roadsides. New York southward and westward to Illinois.

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### Running Strawberry Bush

*E. obovatus*.—*Color*, greenish purple. A trailing shrub, with branches rooting. *Leaves*, with short petioles, opposite, thin, obtuse, inversely ovate, finely toothed. *Peduncles*, shorter than the leaves, bearing 1 to 4 small flowers. April and May.

Seldom more than 1 foot high, spreading on the ground. Found in low, moist grounds from Pennsylvania, Kentucky, Indiana northward. The commonest of the three species.

### Bittersweet

*Solanum dulcamara*.—*Family*, Nightshade. *Color*, bluish purple. *Leaves*, on petioles, the upper ones deeply parted near the base into opposite, ear-like leaflets; the lower ones heart-shape, acutely pointed at apex. *Calyx* and *corolla*, 5-parted. Corolla wheel-shape, the points often turning backward much like a potato blossom; a pair of green spots on the base of each lobe. *Stamens*, 5, their filaments short, anthers closing around the style, opening by 2 chinks at the top. *Fruit*, an oval, red berry. June to September.

A woody-stemmed plant, climbing or twining over fences and stone walls along roadsides. The cymes of delicate flowers give place to crimson, showy berries in fall.

## HABITATS OF PLANTS

### CHAPTER X

#### RIVER BANKS—BROOKS—RUNNING STREAMS—SHORES OF TIDE-WATER BAYS

To an observant person nothing is more evident than the change of plant life, often abrupt, with change of soil. For miles along the dusty road the same daisies and asters repeat themselves. Then an unusually verdant spot, with specifically different growths, appears, and unerringly indicates wetter soil, a spring, a running brook, or a river. In its wake its own beloved flowers tread, hugging its banks, refusing to stray back into the drier fields or woods. The banks of streams are often marshy, with overflowing and stagnant water. The dividing line, therefore, between vegetation peculiar to river banks and swamp plants is sometimes difficult to trace. A flower of wet soil not found in this chapter should be sought in the next.

Says Thoreau, "Rivers and lakes are the great protectors of plants against the aggression of the forest, by their annual rise and fall, keeping open a narrow strip where these more delicate plants have light and space in which to grow."

#### FOR DESCRIPTIONS SEE PAGE REFERENCES

BUR-REED (*Sparganium eurycarpum*). Page 40.

(*S. simplex*). Page 38.

(*S. minimum*). Page 40.

ARROW-HEAD (*Sagittaria latifolia*). Page 40. Sometimes growing in water.

WATER PLANTAIN (*Alisma Plantago-aquatica*). Page 40. Shallow water.

WATER-WEED (*Elodea canadensis*). Page 40. Common in slow streams.

SWEET FLAG. CALAMUS (*Acorus Calamus*). Page 22. Also found in swamps.

SPIDERWORT (*Tradescantia virginiana*). Page 298. Alluvial soil.

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GREAT SOLOMON'S SEAL (*Polygonatum commutatum*). Page 156.  
Also in wet meadows.

CARRION-FLOWER (*Smilax herbacea*). Page 377. Common and variable.

GLAUCOUS WILLOW (*Salix discolor*). Page 378. Shrub or small tree.

SILKY WILLOW (*S. sericea*). Page 378.

COMMON HOP (*Humulus Lupulus*). Page 383. This may also be found in dry soil.

PALE DOCK (*Rumex altissimus*). Page 26. In alluvial soil.

MILD WATER PEPPER (*Polygonum hydropiperoides*). Page 252.

WATER PEPPER OR COMMON SMARTWEED (*P. hydropiper*). Page 27.

INDIAN CHICKWEED. CARPET WEED (*Mollugo verticillata*). Page 62. Often a weed in the garden.

SMALL-FLOWERED CROWFOOT (*Ranunculus abortivus*). Page 164. Found also on damp hills.

THE CANADA ANEMONE (*Anemone canadensis*), of the Crowfoot Family, is similar to species of the same genus described on page 71. No petals; 5 white sepals. Flowers one inch across. Leaves, much cleft or parted, those from the root with long petioles. On stem a primary involucre of 3 sessile leaves, each 3-cleft. Above this the stem forks twice, and each branch bears a second involucre of 3-divided leaves below the flower. Found north of Pennsylvania. May to August.

VIRGIN'S BOWER (*Clematis virginiana*). Page 392.

WILD MONKSHOOD (*Aconitum uncinatum*). Page 310. Along streams in the mountains south of Pennsylvania.

SHRUB YELLOW-ROOT (*Zanthorrhiza apitifolia*). Page 451. More common southward.

MOONSEED (*Menispermum canadense*). Page 394.

WORMSEED MUSTARD (*Erysimum cheiranthoides*). Page 170. Sterile or sandy soil.

CUCKOO FLOWER (*Cardamine pratensis*). Page 80. Often found in boggy places.

DITCH STONECROP (*Penthorum sedoides*). Page 31.

PIGMY WEED (*Tillaea aquatica*). Page 31. Not far from the coast.

LARGE-FLOWERED SYRINGA (*Philadelphus grandiflorus*). Page 394. A shrub sometimes cultivated.

NINEBARK (*Physocarpus opulifolius*). Page 395. A shrub sometimes cultivated; found wild on rocky banks of streams.

AGRIMONY (*Agrimonia parviflora*). Page 176. Sandy river banks.

DOG ROSE (*Rosa canina*). Page 440. River banks in Pennsylvania. Cultivated.

WILD YELLOW OR RED PLUM (*Prunus americana*). Page 400. Large shrub or small tree.

## HABITATS OF PLANTS

WILD SENNA (*Cassia marilandica*). Page 177.  
VETCH (*Vicia caroliniana*). Page 452.  
VETCHLING. MARSH PEA (*Lathyrus palustris*). Page 317.  
TRAILING WILD BEAN (*Strophostyles helvola*). Page 454. Near the coast.  
STRAWBERRY BUSH (*Euonymus americanus*). Page 455.  
(*E. obovatus*). Page 456.  
SHRUBBY BITTERSWEET. CLIMBING BITTERSWEET. WAXWORK (*Celastrus scandens*). Page 389. A twining shrub. Found also in damp thickets.  
JEWEL-WEED. TOUCH-ME-NOT (*Impatiens pallida*). Page 183.  
Often along roadsides where there are springs.  
SPOTTED TOUCH-ME-NOT (*I. biflora*). Page 185.  
(*Cissus Ampelopsis*). Page 391. South of Virginia.  
FROST GRAPE (*Vitis cordifolia*). Page 392. Southern.  
RIVER-BANK OR SWEET-SCENTED GRAPE (*V. vulpina*). Page 392.  
MUSCADINE (*V. rotundifolia*). Page 392. South of Delaware.  
GREAT ST. JOHN'S-WORT (*Hypericum Ascyron*). Page 188.  
SWEET WHITE VIOLET (*Viola pallens*). Page 94. Banks of brooks.  
MERMAID WEED (*Proserpinaca palustris*). Page 35. In the mud of shallow water.  
ANGELICA TREE. HERCULES' CLUB (*Aralia spinosa*). Page 408.  
MEADOW PARSNIP (*Thaspium barbinode*). Page 197.  
GREAT ANGELICA (*Angelica atropurpurea*). Page 108.  
CORNEL (*Cornus paniculata*). Page 406.  
FETTER BUSH (*Leucothoe Catesbaei*). Page 410. A shrub south of Virginia.  
WATER PIMPERNEL. BROOK-WEED (*Samolus floribundus*). Page 116.  
Near the coast.  
STORAX (*Styrax americana*). Page 418.  
SWAMP PRIVET (*Adelia acuminata*). Page 431. Southern.  
FRINGE-TREE (*Chionanthus virginica*). Page 418. Called also Old Man's Beard. Seen in the North in gardens.  
INDIAN HEMP (*Apocynum cannabinum*). Page 418. Sandy banks of streams.  
HEDGE BINDWEED (*Convolvulus sepium*). Page 419.  
WILD SWEET WILLIAM (*Phlox maculata*). Page 284.  
FORGET-ME-NOT (*Myosotis laxa*). Page 330. Banks of rills and brooks.  
SCORPION GRASS. TRUE FORGET-ME-NOT (*M. scorpioides*). Page 330.  
VIRGINIAN COWSLIP. BLUEBELLS (*Mertensia virginica*). Page 330.  
FOG-FRUIT (*Lippia lanceolata*). Page 120.  
MAD-DOG SKULLCAP (*Scutellaria lateriflora*). Page 333.  
MARSH SKULLCAP (*S. galericulata*). Page 335.  
FALSE DRAGON HEAD (*Physostegia virginiana*). Page 287.

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SPEARMINT (*Mentha spicata*). Page 344.  
PEPPERMINT (*M. piperita*). Page 344.  
WATER MINT (*M. aquatica*). Page 344.  
OSWEGO TEA. BEE BALM (*Monarda didyma*). Page 289.  
WATER HYSSOP (*Bacopa Monniera*). Page 347.  
MUDWORT (*Limosella aquatica*, var. *tenuifolia*). Page 125.  
WATER SPEEDWELL (*Veronica Anagallis-aquatica*). Page 348.  
AMERICAN BROOKLINE (*V. americana*). Page 348.  
NORTHERN BEDSTRAW (*Galium boreale*). Page 128. Also rocky woods.  
BUTTON-WEED (*Diodia teres*). Page 129.  
BUTTONBUSH (*Cephalanthus occidentalis*). Page 420.  
ONE-SEEDED BUR CUCUMBER (*Sicyos angulatus*). Page 423.  
WILD BALSAM-APPLE (*Echinocystis lobata*). Page 424.  
CARDINAL-FLOWER (*Lobelia cardinalis*). Page 292.  
GREAT LOBELIA (*L. siphilitica*). Page 353. Also in low, wet meadows.  
(*L. Canbyi*). Page 355.  
WATER LOBELIA (*L. Dortmanna*). Page 355. Sometimes an aquatic.  
SUNFLOWER (*Helianthus decapetalus*). Page 230.  
CLIMBING HEMPWEED (*Mikania scandens*). Page 448. Near the coast.  
CROOKED-STEM ASTER (*Aster prenanthoides*). Page 364.  
AUTUMN SNEEZEWEEED (*Helenium autumnale*). Page 234.  
COLTSFOOT (*Tussilago Farfara*). Page 235. Along brooks and small streams.  
INDIAN PLANTAIN (*Cacalia suaveolens*). Page 146.

## CHAPTER XI

### SWAMPS (INCLUDING PINE BARREN SWAMPS), BOGS, AND MARSHES

"Hope and the future for me are not in lawns and cultivated fields, not in towns and cities, but in the impervious and quaking swamps. When, formerly, I have analyzed my partiality for some farm which I had contemplated purchasing, I have frequently found that I was attracted solely by a few square rods of impermeable and unfathomable bog—a natural sink in one corner of it. That was the jewel which dazzled me. I derive more of my subsistence from the swamps which surround my native town than from the cultivated gardens in the village. There are no richer parterres to my eyes than the dense beds of dwarf andromeda (*Cassandra calyculata*) which cover these tender places on the earth's surface. Botany cannot go farther than tell me the names of the shrubs which grow there—the high blueberry, panicled andromeda, lambkill, azalea, and rhodora—all standing in the quaking sphagnum. . . . Why not put my house, my parlor, behind this plot instead of behind that meager assemblage of curiosities, that poor apology for Nature and Art which I call my front yard?"—From Thoreau's *Excursions*.

The dividing line between this and the first chapter is often faint, since the banks of streams may be marshy.

CAT-TAIL FLAG (*Typha latifolia*). Page 375.

NARROW-LEAVED CAT-TAIL (*T. angustifolia*). Page 375. Near the coast.

ARROW GRASS (*Triglochin maritima*). Page 20. Salt marshes.

WATER ARUM (*Calla palustris*). Page 42.

SKUNK CABBAGE (*Symplocarpus foetidus*). Page 21.

YELLOW-EYED GRASS (*Xyris caroliniana*). Page 149. Sandy shores and wet places.

(*X. flexuosa*). Page 147. Wet sandy soil.

(*X. fimbriata*). Page 149. Wet pine barrens.

(*X. arenicola*). Page 149. Wet pine barrens.

BOG ASPHODEL (*Narthecium americanum*). Page 149. Wet pine barrens.

SWAMP PINK (*Helonias bullata*). Page 298. Rare and local.

MOUNTAIN BELLWORT (*Oakesia puberula*). Page 156.

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WHITE HELLEBORE. INDIAN POKE (*Veratrum viride*). Page 23.  
THREE-LEAVED SOLOMON'S SEAL (*Smilacina trifolia*). Page 48.  
FLEUR-DE-LIS. LARGER BLUE FLAG (*Iris versicolor*). Page 300.  
SLENDER BLUE FLAG (*I. prismatica*). Page 371. Swamps near  
the coast.  
RAM'S HEAD LADY'S SLIPPER (*Cypripedium arietinum*). Page 302.  
Also in rich, moist woods.  
SHOWY LADY'S SLIPPER (*C. hirsutum*). Page 50.  
SMALL WHITE LADY'S SLIPPER (*C. candidum*). The lip of this  
species is white, striped with purple near the base, within.  
Like the stemless lady's slipper the lip is a pocket or sac.  
*Sepals* and *petals* are greenish with purple spots. *Stem*, leafy,  
one-flowered. One of the rarer orchids, growing in swamps  
in New York and southward, flowering in May and June.  
SMALLER YELLOW LADY'S SLIPPER (*C. parviflorum*). Page 159.  
REIN ORCHIS (*Habenaria flava*). Page 23. Common south-  
ward.  
(*H. obtusata*). Page 23. Found also in rich woods.  
YELLOW FRINGED ORCHIS (*H. ciliaris*). Page 162. Also in wet  
meadows.  
WHITE FRINGED ORCHIS (*H. blephariglottis*). Page 52.  
SMALL PURPLE FRINGED ORCHIS (*H. psycodes*). Page 246. In  
wet, open meadows.  
ROSE POGONIA (*Pogonia ophioglossoides*). Page 248.  
CALOPOGON (*Calopogon pulchellus*). Page 250. Also in low, wet  
meadows.  
ARETHUSA (*Arethusa bulbosa*). Page 250.  
SLENDER LADIES' TRESSES (*Spiranthes cernua*). Page 54.  
TWAYBLADE (*Listera cordata*). Page 304.  
ADDER'S MOUTH (*Microstomis monophyllos*). Page 24. Also in  
cold, moist woods.  
GREEN ADDER'S MOUTH (*M. unifolia*). Page 24.  
TWAYBLADE (*Liparis Loeselii*). Page 24. Local, found also in  
damp thickets.  
LIZARD'S TAIL (*Saururus cernuus*). Page 56.  
SWEET GALE (*Myrica Gale*). Page 379.  
LOW OR SWAMP BIRCH (*Betula pumila*). Page 381.  
SPECKLED OR HOARY ALDER (*Alnus incana*). Page 382.  
GREAT WATER DOCK (*Rumex Britannica*). Page 26.  
SWAMP DOCK (*R. verticillatus*). Page 26.  
MARSH CHICKWEED. SWAMP STARWORT (*Stellaria uliginosa*).  
Page 65.  
WATER PLANTAIN SPEARWORT (*Ranunculus laxicaulis*). Page 164.  
Often in wet ditches.  
LOW SPEARWORT (*R. pusillus*). Page 164. Near the coast.  
CURSED CROWFOOT (*R. sceleratus*). Page 164.

## HABITATS OF PLANTS

MARSH MARIGOLD (*Caltha palustris*). Page 166.  
SPREADING GLOBEFLOWER (*Trollius laxus*). Page 168.  
GOLDTHREAD (*Coptis trifolia*). Page 71. Also in moist woods.  
UMBRELLA LEAF (*Diphylleia cymosa*). Page 75. Along mountains of Virginia and southward, beside springs.  
WATER CRESS (*Radicula Nasturtium-aquaticum*). Page 79. Wet ditches, etc.  
MARSH CRESS (*R. palustris*). Page 171. Often growing in shallow water.  
PITCHER-PLANT (*Sarracenia purpurea*). Page 311.  
ROUND-LEAVED SUNDEW (*Drosera rotundifolia*). Page 81. In wet, sandy, springy ground, and in swamps.  
LONG-LEAVED SUNDEW (*D. longifolia*). Page 83. In pine barrens growing in wet sand.  
THREAD-LEAVED SUNDEW (*D. filiformis*). Page 312. Pine barrens near the coast.  
GOLDEN SAXIFRAGE (*Chrysosplenium americanum*). Page 33.  
GRASS OF PARNASSUS (*Parnassia caroliniana*). Page 85. Also on wet limestone rocks.  
SWAMP BLACK CURRANT (*Ribes lacustre*). Page 384.  
CHOKEBERRY (*Pyrus arbutifolia*). Page 395.  
MARSH FIVE-FINGER (*Potentilla palustris*). Page 312.  
SILVER WEED (*P. Anserina*). Page 174. Brackish marshes.  
WATER OR PURPLE AVENS (*Geum rivale*). Page 312. Also in wet meadows.  
CANADIAN BURNET (*Sanguisorba canadensis*). Page 87.  
SWAMP ROSE (*Rosa carolina*). Page 437.  
(*R. nitida*). Page 439.  
DWARF WILD ROSE (*R. lucida*). Page 439.  
MARSH MILKWORT (*Polygala cruciata*). Page 320.  
(*P. brevifolia*). Page 321.  
ORANGE MILKWORT (*P. lutea*). Page 183.  
POISON SUMACH OR POISON DOGWOOD (*Rhus Vernix*). Page 387.  
DAHOON HOLLY (*Ilex Cassine*). Page 403. Virginia and southward.  
BUCKTHORN (*Rhamnus caroliniana*). Page 390. Also on river banks.  
(*R. alnifolia*). Page 390.  
SWAMP ROSE MALLOW (*Hibiscus Moscheutos*). Page 265. Especially in brackish marshes, near the coast.  
CRIMSON-EYED OR WHITE HIBISCUS (*H. oculiroseus*). Page 94. Especially near the coast.  
LOBLOLLY BAY (*Gordonia Lasianthus*). Page 404. Near the coast, south of Virginia.  
MARSH St. JOHN'S-WORT (*Hypericum virginicum*). Page 267.

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(*H. virgatum*). Page 190. Pennsylvania southward, in damp pine barrens.

LANCE-LEAVED VIOLET (*Viola lanceolata*). Page 94. Also in damp meadows.

SWAMP LOOSESTRIFE (*Decodon verticillatus*). Page 269.

LOOSESTRIFE (*Lythrum hyssopifolia*). Page 323. Near the coast. (*L. lineare*). Page 96. Brackish marshes.

DEERGRASS. MEADOW BEAUTY (*Rhexia virginica*). Page 271. (*R. mariana*). Page 271. Sandy swamps.

SEEDBOX (*Ludwigia alternifolia*). Page 194. Also moist, rich woods.

WATER PURSLANE (*L. palustris*). Page 271. (*L. hirtella*). Page 195. Wet pine barrens. (*L. sphaerocarpa*). Page 35. Often in water. (*L. polycarpa*). Page 35. (*L. linearis*). Page 195.

SOFT WILLOW HERB (*Epilobium molle*). Page 273.

WATER PENNYWORT (*Hydrocotyle americana*). Page 100.

MOCK BISHOP'S-WEED (*Ptilimnium capillaceum*). Page 102. Brackish marshes.

WATER HEMLOCK (*Cicuta bulbifera*). Page 104.

SPOTTED COWBANE (*C. maculata*). Page 104. (*Berula erecta*). Page 104.

WATER PARSNIP (*Sium cicutaefolium*). Page 104.

COW PARSNIP (*Heracleum lanatum*). Page 106.

COWBANE (*Oxypolis rigidior*). Page 106.

HEMLOCK PARSLEY (*Conioselinum chinense*). Page 106.

SILKY CORNEL. KINNIKINNIK (*Cornus Amomum*). Page 406.

RED-OSIER DOGWOOD (*C. stolonifera*). Page 406.

STIFF CORNEL (*C. stricta*). Page 406.

CLAMMY AZALEA. WHITE SWAMP HONEYSUCKLE (*Rhododendron viscosum*). Page 411. Near the coast.

PURPLE AZALEA. PINXTER FLOWER (*R. nudiflorum*). Page 441.

RHODORA (*R. canadense*). Page 441.

SHEEP LAUREL. LAMBKILL. WICKY (*Kalmia angustifolia*). Page 442. Also on hillsides and in pastures.

PALE LAUREL (*K. polifolia*). Page 442. Also on mountains.

BOG ROSEMARY (*Andromeda glaucocephala*). Page 412.

LEATHER LEAF. DWARF CASSANDRA (*Chamaedaphne calyculata*). Page 413.

MOXIE PLUM. CREEPING SNOWBERRY. CAPILLAIRE (*Chiogenes hispidula*). Page 114. Found in peat bogs as well as mossy woods.

DWARF HUCKLEBERRY (*Gaylussacia dumosa*). Page 444. Sandy swamps near the coast.

BLACK HUCKLEBERRY (*G. baccata*). Page 442. Also in rocky woods.

## HABITATS OF PLANTS

BLUEBERRY (*Vaccinium virgatum*). Page 444.  
CANADA BLUEBERRY (*V. canadense*). Page 417. Also in damp woods.  
SWAMP BLUEBERRY (*V. corymbosum*). Page 417.  
CRANBERRY (*V. Oxycoccus*). Page 276.  
LARGE AMERICAN CRANBERRY (*V. macrocarpon*). Page 276.  
SWAMP MILKWEED (*Asclepias incarnata*). Page 282.  
HEDGE NETTLE (*Stachys hyssopifolia*). Page 339.  
(*S. tenuifolia*). Page 340.  
WOUNDWORT (*S. palustris*). Page 339.  
BUGLE WEED (*Lycopus virginicus*). Page 121. Also in low, wet meadows.  
FALSE PIMPERNEL (*Ilysanthes dubia*). Page 348.  
HEDGE HYSSOP (*Gratiola virginiana*). Page 127. Also on wet shores.  
GOLDEN HEDGE HYSSOP (*G. aurea*). Page 204. Often near the coast, along shores of fresh-water bays.  
MARSH SPEEDWELL (*Veronica scutellata*). Page 350.  
LOUSEWORT (*Pedicularis lanceolata*). Page 208.  
SMALL BEDSTRAW (*Galium trifidum*). Page 128.  
SWAMP FLY HONEYSUCKLE (*Lonicera oblongifolia*). Page 436.  
In swamps of arbor vitæ and larch woods.  
MOUNTAIN FLY HONEYSUCKLE (*L. caerulea*). Page 435.  
ARROW-WOOD (*Viburnum dentatum*). Page 422.  
WITHE-ROD. WILD RAISIN (*V. cassinoides*). Page 422.  
THOROUGHWORT (*Eupatorium leucolepis*). Page 130.  
BOG GOLDEN-ROD (*Solidago uliginosa*). Page 220.  
(*S. patula*). Page 220.  
(*S. neglecta*). Page 222.  
(*S. Elliottii*). Page 220. Near the coast in fresh or brackish swamps.  
(*S. graminifolia*). Page 222.  
LOW, ROUGH ASTER (*Aster radula*). Page 357.  
PURPLE-STEM ASTER (*A. puniceus*). Page 364.  
BOG ASTER (*A. nemoralis*). Page 362.  
MARSH ELDER. HIGHWATER-SHRUB (*Iva oraria*). Page 424. Salt marshes.  
WILD SUNFLOWER (*Helianthus giganteus*). Page 228. Also in low thickets.  
NARROW-LEAVED SUNFLOWER (*H. angustifolius*). Page 228. In sandy wet places, near the coast.  
TICKSEED (*Coreopsis rosea*). Page 296.  
SWAMP BEGGAR-TICKS (*Bidens connata*). Page 232.  
LARGER BUR MARIGOLD (*B. laevis*). Page 232. Near the coast.  
TALL TICKSEED SUNFLOWER (*B. trichosperma*). Page 234.  
SWAMP THISTLE (*Cirsium muticum*). Page 367.

## CHAPTER XII

### AT THE SEASIDE. NEAR THE COAST

Salt air and sandy soil attract their own flowers. Among them are plants with stiff, unyielding foliage, of a stern and defying sort, which venture so close to the ocean that they are watered with its salt spray. Others, of a tenderer character, creep behind the protecting dunes, nestling in hollows, craving shelter from the fierce gales. Actual coast vegetation is sparse. There are no trees, and only a few hardy shrubs. The shore is joined to the country by a skirting fringe of pines, oaks, cedars, and locusts, beneath whose shade still other species are content to dwell.

The flowers grouped in this chapter may, some of them, like the Canadian burnet, have crept inland; but most are recognized as belonging to the seashore.

Some flowers that grow in salt marshes and pine barrens near the coast are here included.

RED-ROOT (*Lacnanthes tinctoria*). Page 157. In sandy swamps near the coast.

LADIES' TRESSES (*Spiranthes praecox*). Page 54. Southern.

BAYBERRY (*Myrica carolinensis*). Page 379. Sterile soil, not far from the coast. Pine woods.

SMOOTH ALDER (*Alnus rugosa*). Page 381.

GOLDEN DOCK (*Rumex persicarioides*). Page 27.

WHITE DOCK (*R. pallidus*). Page 26. On rocks, sea-beaches, and marshes.

SEASIDE KNOTWEED (*Polygonum maritimum*). Page 58.  
(*P. prolificum*). Page 251.

COAST BLITE (*Chenopodium rubrum*). Page 253. Salt marshes.

ORACH (*Atriplex patula*). Page 28.

SEA BEACH ATRIPLEX (*A. arenaria*). Page 28.

GLASSWORT. SAMPHIRE (*Salicornia mucronata*). Page 28.  
(*S. europaea*). Page 29.  
(*S. ambigua*). Page 29.

SEA BLITE (*Sueda linearis*). Page 29.

SALTWORT (*Salsola Kali*). Page 253.

SEA PURSLANE (*Sesuvium maritimum*). Page 307.

SAND SPURREY (*Spergularia marina*). Page 253.

## HABITATS OF PLANTS

PEARLWORT (*Sagina procumbens*). Page 62.  
BROAD-LEAVED SANDWORT (*Arenaria lateriflora*). Page 64.  
SEA-BEACH SANDWORT (*A. peploides*). Page 64.  
PINE-BARREN SANDWORT (*A. caroliniana*). Page 62. In sand.  
SEASIDE CROWFOOT (*Ranunculus Cymbalaria*). Page 163.  
SEA ROCKET (*Cakile edentula*). Page 310. Also on the shores of the Great Lakes.  
BEACH PLUM (*Prunus maritima*). Page 400.  
DWARF OR SAND CHERRY (*P. pumila*). Page 401.  
KIDNEY BEAN (*Phaseolus polystachyus*). Page 453. Thickets near the coast.  
BEACH PEA (*Lathyrus maritimus*). Page 317.  
MILK PEA (*Galactia regularis*). Page 317. Sandy woods along the coast.  
SEASIDE SPURGE (*Euphorbia polygonifolia*). Page 34. Sandy soil.  
(*E. Ipecacuanhae*). Page 33.  
BROOM CROWBERRY (*Corema Conradii*). Page 455.  
MARSH MALLOW (*Althaea officinalis*). Page 265. Salt marshes. (*Kosteletzkyia virginica*). Page 267. In coast marshes.  
HUDSONIA (*Hudsonia ericoides*). Page 430.  
POVERTY GRASS (*H. tomentosa*). Page 430.  
PINWEED (*Lechea maritima*). Page 267. Sandy soil.  
PRIMROSE-LEAVED VIOLET (*Viola primulifolia*). Page 96.  
SCOTCH LOVAGE (*Ligusticum scoticum*). Page 106.  
FETTER BUSH (*Leucothoë racemosa*). Page 410. Wet thickets near the coast.  
SEA LAVENDAR. MARSH ROSEMARY (*Limonium carolinianum*). Page 324. Salt marshes.  
SEA MILKWORT (*Glaux maritima*). Page 278. North of Cape Cod, along seashores.  
SEA PINK (*Sabatia stellaris*). Page 280.  
(*S. gracilis*). Page 280.  
LARGE MARSH PINK (*S. dodecandra*). Page 280.  
SPIKED CENTAURY (*Centaureum spicatum*). Page 282. Local.  
FEW-FLOWERED MILKWORT (*Asclepias lanceolata*). Page 284.  
RED MILKWEED (*A. rubra*). Page 284.  
HYSSOP SKULLCAP (*Scutellaria integrifolia*). Page 335.  
PURPLE GERARDIA (*Gerardia purpurea*). Page 289. In sand.  
SEASIDE GERARDIA (*G. maritima*). Page 289.  
CHAFF-SEED (*Schwalbea americana*). Page 350. Moist sand.  
YELLOW RATTLE (*Rhinanthus Crista-galli*). Page 208.  
CLEAVERS. GOOSE GRASS (*Galium Aparine*). Page 128.  
CLUSTERED BLUETS (*Oldenlandia uniflora*). Page 130. Wet soil.  
BEACH GOLDEN-ROD (*Solidago sempervirens*). Page 222.  
SLENDER-LEAVED GOLDEN-ROD (*S. tenuifolia*). Page 222.

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NEW YORK ASTER (*Aster novi-belgii*). Page 362. One variety (*litoreus*) is found in salt marshes.

SALT MARSH ASTER (*A. tenuifolius*). Page 362.  
(*A. subulatus*). Page 362.

SALT MARSH FLEABANE (*Pluchea camphorata*). Page 296. Salt marshes.

GROUNDSEL TREE (*Baccharis halimifolia*). Page 425. Along marshes and sea-beaches.

PURPLE CUDWEED (*Gnaphalium purpureum*). Page 143.

HEDGEHOG BURWEED (*Xanthium echinatum*). Page 226. Lakeshores as well as seashores.

YELLOW THISTLE (*Cirsium spinosissimum*). Page 236. Poor soil, near the coast.

## CHAPTER XIII

### AQUATICS

There is something especially fascinating about plants that grow in the water. They are generally odd and striking. They are perhaps just out of reach, and if you cannot hire a barefooted boy, you must get a row-boat in order to secure the treasures. They look so cool and clean, and rest so quietly upon the lake's placid surface! The bright colors of the flowers mingle harmoniously with their large, undivided, or else finely cut, seaweed-like leaves—for our aquatic foliage is apt to run to one of these extremes.

We have not many aquatics. Sometimes swamp plants become aquatic, and those which generally live in water may become stranded and rooted on muddy banks.

BUR-REED (*Sparganium simplex*). Page 38.

(*S. eurycarpum*). Page 40.

(*S. minimum*). Page 40.

TAPE GRASS. EEL GRASS (*Valisneria spiralis*). *Family*, Frog's-bit. The ribbon-like leaves grow 6 feet long, wholly submerged or floating at the ends. Staminate flowers break off and float on surface. Pistillate flowers grow on long stems, until they reach the surface. After pollination they coil spirally, contracting, and ripen their fruit under water. Common and well known along our shores.

GOLDEN CLUB (*Orontium aquaticum*). Page 147.

DUCKWEED (*Spirodela polyrhiza*). Page 22.

IVY-LEAVED DUCKWEED (*Lemna trisulca*). Page 22.

PIPEWORT (*Eriocaulon articulatum*). Page 42.

GREEN ARROW ARUM (*Peltandra virginica*). Page 21.

PICKEREL-WEED (*Pondeteria cordata*). Page 299.

MUD PLANTAIN (*Heteranthera reniformis*). Page 44.

WATER STAR-GRASS (*H. dubia*). Page 149.

YELLOW POND LILY (*Nymphaea advena*). Page 162.

(*N. microphylla*). Page 163.

WATER NYMPH. WATER LILY (*Castalia odorata*). Page 68.

SACRED BEAN (*Nelumbo lutea*). Page 163.

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WATER SHIELD (*Brasenia Schreberi*). Page 307.  
COMMON WHITE WATER CROWFOOT (*Ranunculus aquatilis, var. capillaceus*). Page 68.  
STIFF WATER CROWFOOT (*R. circinatus*). Page 69.  
YELLOW WATER CROWFOOT (*R. delphinifolius*). Page 163.  
WATER MILFOIL (*Myriophyllum verticillatum*). Page 35.  
(*M. scabratum*). Page 323.  
LOW WATER MILFOIL (*M. humile*). Page 324.  
MERMAID WEED (*Proserpinaca palustris*). Page 35. Listed in Chapter X, but sometimes this is an aquatic.  
WATER PENNYWORT (*Hydrocotyle americana*). Page 100. Often in mud beside streams.  
(*H. umbellata*). Page 100.  
(*H. verticillata*). Page 100.  
(*Berula erecta*). Page 104.  
FEATHERFOIL. WATER VIOLET (*Hottonia inflata*). Page 116.  
FLOATING HEART (*Nymphoides lacunosum*). Page 118.  
BLADDERWORT (*Utricularia inflata*). Page 209.  
COMMON BLADDERWORT (*U. vulgaris*). Page 209.  
PURPLE BLADDERWORT (*U. purpurea*). Page 350.  
(*U. resupinata*). Page 351.  
(*U. subulata*). Page 209.  
HORNED BLADDERWORT (*U. cornuta*). Page 210.  
WATER MARIGOLD (*Bidens Beckii*). Page 234.

## CHAPTER XIV

### WET MEADOWS, AND THICKETS. LOW, RICH GROUNDS

Bordering the marshes and streams are the wet meadows, which glow with rich and varied plant life. Tall grasses and rushes wave among the yellow lilies, grass of Parnassus, and meadow-rue. Nestling deep down, half hidden in moss and cress, are the dainty marsh harebell and sweet white violet. Here we shall cull a choice bouquet. We still need our rubbers over tall shoes. The latter I always wear in walking, as a protection from possible snake bites. The former I suspend in a bag from my belt, in order to have them "handy." The wet meadow and swamp overlap each other, and some flowers may be grouped in this chapter which also grow in the marshes.

BLAZING STAR. DEVIL'S BIT (*Chamaelirium luteum*). Page 44.  
BUNCH-FLOWER (*Melanthium virginicum*). Page 22.  
CRISPED BUNCH-FLOWER (*M. latifolium*). Page 46.  
WILD GARLIC (*Allium canadense*). Page 46.  
FIELD GARLIC (*A. vineale*). Page 23.  
TURK'S-CAP LILY (*Lilium superbum*). Page 152.  
WILD YELLOW LILY (*L. canadense*). Page 154.  
YELLOW ADDER'S-TONGUE (*Erythronium americanum*). Page 154.  
WHITE DOG'S-TOOTH VIOLET (*E. albidum*). Page 46.  
FALSE SPIKENARD (*Smilacina racemosa*). Page 47.  
FALSE SOLOMON'S SEAL (*S. stellata*). Page 47.  
GREEN BRIER. HORSE BRIER (*Smilax rotundifolia*). Page 376.  
BRISTLY GREEN BRIER (*S. bona-nox*). Page 377.  
(*S. hispida*). Page 376.  
WILD YAM-ROOT (*Dioscorea villosa*). Page 425.  
STAR GRASS (*Hypoxis hirsuta*). Page 157.  
BLUE-EYED GRASS (*Sisyrinchium angustifolium*). Page 302.  
(*S. gramineum*). Page 302.  
RAGGED FRINGED ORCHIS (*Habenaria lacera*). Page 24.  
LARGE PURPLE-FRINGED ORCHIS (*H. fimbriata*). Page 303.  
TEAR-THUMB (*Polygonum virginianum*). Page 27.  
HALBERD-LEAVED TEAR-THUMB (*P. arifolium*). Page 58.  
ARROW-LEAVED TEAR-THUMB (*P. sagittatum*). Page 58.

## HARPER'S GUIDE TO WILD FLOWERS

COMMON POKE OR SCOKE. GARGET. PIGEON BERRY. POKEWEED (*Phytolacca decandra*). Page 60.

NORTHERN STITCHWORT (*Stellaria borealis*). Page 65.

MOUSE-EAR CHICKWEED (*Cerastium nutans*). Page 66.

RAGGED ROBIN (*Lychnis Flos-cuculi*). Page 253.

SWAMP BUTTERCUP (*Ranunculus septentrionalis*). Page 165.

CREEPING BUTTERCUP (*R. repens*). Page 165.

BRISTLY CROWFOOT (*R. pensylvanicus*). Page 165.

PURPLISH MEADOW RUE (*Thalictrum dasycarpum*). Page 307.

TALL MEADOW RUE (*T. polygamum*). Page 69.

LEATHER FLOWER (*Clematis Viorna*). Page 450.

FEVER BUSH. WILD ALLSPICE (*Benzoin aestivale*). Page 427.

COMMON WINTER CRESS. YELLOW ROCKET (*Barbarea vulgaris*). Page 171.

SPRING CRESS (*Cardamine bulbosa*). Page 80.

(*C. hirsuta*). Page 80.

SWAMP SAXIFRAGE (*Saxifraga pennsylvanica*). Page 31.

MEADOW-SWEET (*Spiraea salicifolia*). Page 395.

HARDHACK. STEEPLE BUSH (*S. tomentosa*). Page 437.

WILD STRAWBERRY (*Fragaria virginiana*). Page 86. The wild strawberry is found also in uplands, but is larger and sweeter in wet meadows.

AVENS (*Geum virginianum*). Page 87.

YELLOW AVENS (*G. strictum*). Page 174.

WATER OR PURPLE AVENS (*G. rivale*). Page 312.

RUNNING SWAMP BLACKBERRY (*Rubus hispida*). Page 400.

WILD SENNA (*Cassia marilandica*). Page 177.

WATER STARWORT (*Callitricha deflexa*). Page 34.

BLACK ALDER. WINTERBERRY (*Ilex verticillata*). Page 401.

SMOOTH WINTERBERRY (*I. laevigata*). Page 402.

INKBERRY (*I. glabra*). Page 402.

ST. JOHN'S-WORT (*Hypericum punctatum*). Page 188.

(*H. adpressum*). Page 186.

PALE ST. JOHN'S-WORT (*H. ellipticum*). Page 186.

DWARF ST. JOHN'S-WORT (*H. mutilum*). Page 188.

COMMON BLUE VIOLET (*Viola cucullata*). Page 322.

ARROW-LEAVED VIOLET (*V. sagittata*). Page 321. Especially near the coast.

PALE VIOLET (*V. striata*). Page 96.

DOG VIOLET (*V. conspersa*). Page 323.

SPIKED LOOSESTRIFE (*Lythrum Salicaria*). Page 269.

LONG-LEAVED WILLOW HERB (*Epilobium densum*). Page 273.

PURPLE-LEAVED WILLOW HERB (*E. coloratum*). Page 273.

SWEET PEPPERBUSH. CLETHRA (*Clethra alnifolia*). Page 408.

FETTER BUSH (*Leucothoe axillaris*). Page 410.

STAGGER-BUSH (*Lyonia mariana*). Page 412.

## HABITATS OF PLANTS

MALE BERRY (*L. ligustrina*). Page 413.  
LOOSESTRIFE (*Lysimachia terristris*). Page 198.  
FRINGED LOOSESTRIFE (*Steironema ciliatum*). Page 200.  
YELLOW JESSAMINE (*Gelsemium sempervirens*). Page 432.  
CENTAURY (*Centaurium pulchellum*). Page 280.  
FRINGED GENTIAN (*Gentiana crinita*). Page 324. Often along roadsides.  
CLOSED GENTIAN (*G. Andrewsii*). Page 326.  
COMMON MILKWEED OR SILKWEED (*Asclepias syriaca*). Page 284.  
BLUE Vervain (*Verbena hastata*). Page 331.  
AMERICAN GERMANDER. WOOD SAGE (*Teucrium canadense*).  
Page 287.  
BUGLE WEED (*Lycopus virginicus*). Page 121.  
WATER HOREHOUND (*L. sessilifolius*). Page 123.  
(*L. americanus*). Page 123.  
FIELD MINT (*Mentha arvensis*). Page 123.  
BITTERSWEET (*Solanum Dulcamara*). Page 456.  
TURTLEHEAD. SNAKEHEAD (*Chelone glabra*). Page 125.  
MONKEY FLOWER (*Mimulus ringens*). Page 347.  
WINGED MONKEY FLOWER (*M. alatus*). Page 348.  
TRUMPET-FLOWER (*Tecoma radicans*). Page 433.  
MARSH BEDSTRAW (*Galium palustre*). Page 128.  
BLUETS. INNOCENCE (*Houstonia caerulea*). Page 129. In grassy places, moist or dry. In damp pastures.  
COMMON ELDER (*Sambucus canadensis*). Page 423.  
MARSH BELLFLOWER (*Campanula aparinoides*). Page 353.  
GREAT LOBELIA (*Lobelia siphilitica*). Page 353. Listed also in Chapter X.  
IRONWEED (*Vernonia noveboracensis*). Page 355. Near the coast.  
JOE PYE WEED. TRUMPET WEED (*Eupatorium purpureum*). Page 294.  
(*E. verbenaefolium*). Page 132.  
THOROUGHWORT. BONESET (*E. perfoliatum*). Page 132.  
BLAZING STAR. BUTTON SNAKEROOT (*Liatris spicata*). Page 357.  
GOLDEN-ROD (*Solidago serotina*, var. *gigantea*). Page 220.  
NEW ENGLAND ASTER (*Aster novae-angliae*). Page 359.  
MICHAELMAS DAISY (*A. Tradescanti*). Page 136.  
PANICLED ASTER (*A. paniculatus*). Page 136.  
RUSH ASTER (*A. junceus*). Page 360.  
FLEABANE (*Erigeron philadelphicus*). Page 294.  
CONE-FLOWER (*Rudbeckia laciniata*). Page 226.  
(*Actinomeris alternifolia*). Page 230.  
BEGGAR-TICKS (*Bidens frondosa*). Page 230.  
SPANISH NEEDLES (*B. bipinnata*). Page 232.  
GOLDEN RAGWORT (*Senecio aureus*). Page 236.

## CHAPTER XV

### DRY FIELDS AND PASTURES. WASTE PLACES. ROADSIDES

From the dry fields and pastures to the roadsides is an easy journey for the seeds of dry soil plants. Wherever man makes a highway for himself, there his humble followers of the vegetable kingdom come. They give color and beauty to what would otherwise be a sandy path. Those who have driven along roads in the Old World, as in some parts of Sicily, in which high walls on either side bound strips of white dust, will remember with gratitude the roads of New England, gorgeous with asters and golden-rod in September. These friends of ours flourish alike in drought, dust, and summer tempest. Alas! they are seldom seen by the tourists who rush by in a big car. For real pleasure, give us a comfortable buggy drawn by a friendly horse on whose back the reins idly lie, leisure, a friend, and a country road.

BLACKBERRY LILY (*Belamcanda chinensis*). Page 159.  
LADIES' TRESSES (*Spiranthes Beckii*). Page 52.  
(*S. gracilis*). Page 52.  
PRAIRIE WILLOW (*Salix humilis*). Page 377.  
DWARF GRAY WILLOW (*S. tristis*). Page 378.  
SWEET FERN (*Myrica asplenifolia*). Page 380.  
HAZELNUT. FILBERT (*Corylus americana*). Page 380.  
BEAKED HAZELNUT (*C. rostrata*). Page 380.  
DWARF BIRCH (*Betula glandulosa*). Page 381.  
SLENDER NETTLE (*Urtica gracilis*). Page 25.  
STINGING NETTLE (*U. dioica*). Page 25.  
SMALL NETTLE (*U. urens*). Page 25. The nettles sometimes become disagreeable weeds.  
BASTARD TOAD-FLAX (*Comandra umbellata*). Page 56.  
FIELD MOUSE-EAR CHICKWEED (*Cerastium arvense*). Page 65.  
COMMON MOUSE-EAR CHICKWEED (*C. vulgatum*). Page 65.  
MOUSE-EAR CHICKWEED (*C. viscosum*). Page 65.  
RED CAMPION (*Lychnis dioica*). Page 254.  
WHITE CAMPION (*L. alba*). Page 66.  
CAMPION. SLEEPY CATCHFLY (*Silene antirrhina*). Page 254.  
NIGHT-FLOWERING CATCHFLY (*S. noctiflora*). Page 68.  
BLADDER CAMPION (*S. latifolia*). Page 66.

## HABITATS OF PLANTS

SOAPWORT. BOUNCING BET (*Saponaria officinalis*). Page 256.  
DEPTFORD PINK (*Dianthus Armeria*). Page 256.  
COMMON BARBERRY (*Berberis vulgaris*). Page 426.  
HORN POPPY. SEA POPPY (*Glaucium flavum*). Page 169.  
COMMON FUMITORY (*Fumaria officinalis*). Page 260.  
WHITLOW GRASS (*Draba verna*). Page 77.  
(*D. caroliniana*). Page 79.  
WILD PEPPERGRASS (*Lepidium virginicum*). Page 79.  
BLACK MUSTARD (*Brassica nigra*). Page 169.  
MOUSE-EAR CRESS (*Sisymbrium Thalianum*). Page 79.  
ROCK CRESS (*Arabis lyrata*). Page 81.  
TOWER MUSTARD (*A. glabra*). Page 81.  
DYER'S WEED OR WELD (*Reseda Luteola*). Page 31.  
MEADOW - SWEET (*Spiraea latifolia*). This is the common meadow - sweet, with pink or white blossoms, found in dry, rocky fields and pastures in New England. It may be known by its dark-red stems, thin, coarsely serrate leaves and panicled flowers.  
HARDHACK. STEEPLE BUSH (*S. tomentosa*). Page 437. The hardhack is often found along roadsides with the white species. It is listed in Chapter XIV.  
WILD STRAWBERRY (*Fragaria virginiana*). Page 86. Often this plant is found in dry as well as moist fields. Listed in Chapter XIV.  
(*Duchesnea indica*). Page 86.  
TALL CINQUEFOIL (*Potentilla arguta*). Page 172.  
FIVE-FINGER (*P. monspeliensis*). Page 172.  
SILVERY CINQUEFOIL (*P. argentea*). Page 172.  
SHRUBBY CINQUEFOIL (*P. fruticosa*). Page 174.  
COMMON CINQUEFOIL (*P. canadensis*). Page 174.  
QUEEN OF THE PRAIRIE (*Filipendula rubra*). Page 260.  
BLACK RASPBERRY (*Rubus occidentalis*). Page 398.  
PURPLE FLOWERING RASPBERRY (*R. odoratus*). Page 437. Doubtless this grows also in woods. I have found it several times bordering roads.  
DEWBERRY (*R. villosus*). Page 399.  
SWEETBRIER. EGLANTINE (*Rosa rubiginosa*). Page 439.  
SLOE. BLACKTHORN (*Prunus insititia*). Page 400.  
CHICKASAW PLUM (*P. angustifolia*). Page 400.  
PARTRIDGE PEA (*Cassia Chamaecrista*). Page 177.  
WILD SENSITIVE PLANT (*C. nictitans*). Page 177.  
DYER'S GREENWEED (*Genista tinctoria*). Page 428.  
WHITE CLOVER (*Trifolium repens*). Page 89.  
YELLOW OR HOP CLOVER (*T. agrarium*). Page 179.  
LOW HOP CLOVER (*T. procumbens*). Page 180.  
RABBIT-FOOT OR STONE CLOVER (*T. arvense*). Page 313.

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SWEET CLOVER. YELLOW MELILOT (*Melilotus officinalis*). Page 180.  
WHITE MELILOT (*M. alba*). Page 89.  
BLACK MEDICK. NONESUCH (*Medicago lupulina*). Page 180.  
CORONILLA (*Coronilla varia*). Page 261.  
HAIRY VETCH (*Vicia hirsuta*). Page 317.  
(*V. tetrasperma*). Page 317.  
BUTTERFLY PEAS (*Clitoria mariana*). Page 454.  
LONG-STALKED CRANESBILL (*Geranium columbianum*). Page 319.  
WHORLED MILKWORT (*Polygala verticillata*). Page 90.  
THREE-SEEDED MERCURY (*Acalypha virginica*). Page 33.  
MILK PURSLANE (*Euphorbia maculata*). Page 265.  
STAG-HORN SUMACH (*Rhus typhina*). Page 387.  
SMOOTH SUMACH (*R. glabra*). Page 389.  
BURNING BUSH. WAAHOO (*Evonymus atropurpureus*). Page 455.  
MALLOW (*Malva verticillata*). A species similar to *M. crispa*  
(described on page 92). It differs in its leaves, which are  
roundish, 5 to 7 crenately lobed, and not crisped or crinkled.  
HIGH MALLOW (*M. sylvestris*). Page 265.  
MUSK MALLOW (*M. moschata*). Page 92. These mallows may  
be also reckoned as weeds.  
BIRD-FOOT VIOLET (*Viola pedata*). Page 321.  
CLAMMY CUPHEA (*Cuphea petiolata*). Page 323.  
COMMON EVENING PRIMROSE (*Oenothera biennis*). Page 195.  
SUNDROPS (*O. fruticosa*). Page 195.  
(*O. pumila*). Page 197.  
GAURA (*Gaura biennis*). Page 274.  
POISON HEMLOCK (*Conium maculatum*). Page 102.  
FOOL'S PARSLEY (*Aethusa Cynapium*). Page 106.  
WILD PARSNIP (*Pastinaca sativa*). Page 198.  
SHEEP LAUREL. LAMBKILL. WICKY (*Kalmia angustifolia*). Page  
442. This pink laurel may be found in moist or dry soil, in  
pastures and borders of swamps.  
COMMON PIMPERNEL (*Anagallis arvensis*). Page 278.  
BITTER HERB. EARTH GALL (*Centaurium umbellatum*). Page  
282.  
BUTTERFLY-WEED. PLEURISY-ROOT (*Asclepias tuberosa*). Page  
200.  
PURPLE MILKWEED (*A. purpurascens*). Page 328.  
(*A. amplexicaulis*). Page 328.  
FIELD BINDWEED (*Convolvulus arvensis*). Page 419.  
STICKSEED (*Lappula virginiana*). Page 330.  
CORN GROMWELL (*Lithospermum arvense*). Page 119.  
COMMON GROMWELL (*L. officinale*). Page 119.  
VIPER'S BUGLOSS. BLUE-WEED. BLUE DEVIL (*Echium vulgare*).  
Page 331.

## HABITATS OF PLANTS

WHITE VERVAIN (*Verbena urticaefolia*). Page 120.  
BASTARD PENNYROYAL (*Trichostema dichotomum*). Page 333.  
(*T. lineare*). Page 333.  
HOREHOUND (*Marrubium vulgare*). Page 120.  
SELF-HEAL. HEAL-ALL. CARPENTER-WEED (*Prunella vulgaris*).  
Page 337.  
COMMON HEMP NETTLE (*Galeopsis Tetrahit*). Page 337.  
RED HEMP NETTLE (*G. Ladanum*). Page 287.  
WILD MARJORAM (*Origanum vulgare*). Page 341.  
BLACK HENBANE (*Hyoscyamus niger*). Page 203.  
COMMON MULLEIN (*Verbascum Thapsus*). Page 204.  
MOTH MULLEIN (*V. Blattaria*). Page 124.  
WHITE MULLEIN (*V. Lychnitis*). Page 124.  
BUTTER AND EGGS. RAMSTEAD (*Linaria vulgaris*). Page 204.  
SNAPDRAGON (*Antirrhinum Oronitum*). Page 125.  
BEARD-TONGUE (*Pensetmon hirsutus*). Page 347.  
SLENDER GERARDIA (*Gerardia tenuifolia*). Page 289.  
INDIAN TOBACCO (*Lobelia inflata*). Page 353.  
SPIKED LOBELIA (*L. spicata*). Page 355.  
LARGE BUTTON SNAKEROOT (*Liatris scariosa*). Page 357.  
GOLDEN ASTER (*Chrysopsis falcatata*). Page 210.  
MARYLAND GOLDEN ASTER (*C. mariana*). Page 210.  
SILVER-ROD (*Solidago bicolor*). Page 134.  
GOLDEN-ROD (*S. puberula*). Page 216. Not far from the coast.  
(*S. hispida*). Page 214.  
SWEET GOLDEN-ROD (*S. odora*). Page 216.  
FIELD GOLDEN-ROD (*S. nemoralis*). Page 218.  
SHOWY ASTER (*Aster spectabilis*). Page 357.  
(*A. concolor*). Page 359. Near the coast.  
LATE PURPLE ASTER (*A. patens*). Page 359.  
SMOOTH ASTER (*A. laevis*). Page 360.  
WHITE HEATH ASTER (*A. ericoides*). Page 134.  
DENSE-FLOWERED ASTER (*A. multiflorus*). Page 136.  
BUSHY ASTER (*A. dumosus*). Page 360.  
CALICO ASTER (*A. lateriflorus*). Page 136.  
NEW YORK ASTER (*A. novi-belgii*). Page 362.  
DAISY FLEABANE (*Erigeron ramosus*). Page 138.  
PLANTAIN-LEAVED EVERLASTING (*Antennaria plantaginifolia*).  
Page 140.  
COMMON EVERLASTING (*Gnaphalium polycephalum*). Page 142.  
CLAMMY EVERLASTING (*G. decurrens*). Page 142.  
LOW CUDWEED (*G. uliginosum*). Page 142.  
ELECAMPANE (*Inula Helenium*). Page 224.  
GREAT RAGWEED (*Ambrosia trifida*). Page 37.  
(*Tetragonotheca helianthoides*). Page 226.  
GRAY-HEADED CONE-FLOWER (*Lepachys pinnata*). Page 228.

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YARROW. MILFOIL (*Achillea Millefolium*). Page 143.  
MAY-WEED. DOG FENNEL (*Anthemis Cotula*). Page 143.  
OX-EYE DAISY. WHITE-WEED. MARGUERITE (*Chrysanthemum Leucanthemum*). Page 144. This must also be reckoned a persistent and unwelcome weed.  
WORMWOOD (*Ariensia Absinthium*). Page 235.  
COMMON GROUNDSSEL (*Senecio vulgaris*). Page 235.  
BURDOCK (*Arctium Lappa*). Page 366.  
MUSK THISTLE (*Carduus nutans*). Page 366.  
COMMON OR BULL THISTLE (*Cirsium lanceolatum*). Page 366.  
TALL OR ROADSIDE THISTLE (*C. altissimum*). Page 367.  
PASTURE THISTLE (*C. pumilum*). Page 367.  
COTTON OR SCOTCH THISTLE (*Onopordum Acanthium*). Page 368.  
BROWN KNAPEWEE (*Centaurea Jacea*). Page 368.  
KNAPEWEE. SPANISH BUTTONS (*C. nigra*). Page 368.  
NIPPLE-WORT (*Lapsana communis*). Page 236.  
SUCCORY OR CHICORY (*Cichorium Intybus*). Page 369.  
DWARF DANDELION (*Krigia virginica*). Page 236.  
FALL DANDELION (*Leontodon autumnalis*). Page 237.  
GOAT'S BEARD (*Tragopogon pratensis*). Page 237.  
FIELD SOW THISTLE (*Sonchus arvensis*). Page 239.  
WILD LETTUCE. HORSE-WEED (*Lactuca canadensis*). Page 239.  
LION'S-FOOT. GALL-OF-THE-EARTH (*Prenanthes serpentaria*). Page 146.  
ORANGE HAWKWEED. DEVIL'S PAINT-BRUSH. GRIM THE COLLIER (*Hieracium aurantiacum*). Page 239.

## CHAPTER XVI

### SANDY, STERILE SOIL

This chapter is supplementary to the last. A few plants, not strictly roadside or field plants, those found, perhaps, on hill-sides whose good soil has been washed away, along the edges of open woods or upon dry banks, are grouped here. No soil is too poor to support vegetable life. Mosses and lichens cover even rocks. The frostweed and orange grass seem to require little or no nitrogenous substance such as helps to make fertile soil.

BEAR OR BLACK SCRUB OAK (*Quercus ilicifolia*). Page 382.  
COAST JOINTWEED (*Polygonella articulata*). Page 58. This often borders roadsides running through pine forests.  
INDIAN CHICKWEED (*Mollugo verticillata*). Page 62. In garden paths or along sandy banks of streams.  
SAND SPURREY (*Spergularia rubra*). Page 253.  
PEARLWORT (*Sagina decumbens*). Page 62.  
THYME-LEAVED SANDWORT (*Arenaria serpyllifolia*). Page 64.  
HEDGE MUSTARD (*Sisymbrium officinale*). Page 170.  
DWARF THORN (*Crataegus tomentosa*). Page 398.  
LOW OR RUNNING BLACKBERRY (*Rubus canadensis*). Page 399.  
SAND BLACKBERRY (*R. cuneifolius*). Page 399.  
LOW BUSH BLACKBERRY (*R. trivialis*). Page 399. Near the coast.  
PASTURE ROSE (*Rosa humilis*). Page 439.  
SAND CHERRY (*Prunus pumila*). Page 401. Also in Chapter XII.  
WILD SENSITIVE PLANT (*Cassia nictitans*). Page 177.  
RATTLE-BOX (*Crotalaria sagittalis*). Page 179.  
SCOTCH BROOM (*Cytisus scoparius*). Page 430.  
WILD LUPINE (*Lupinus perennis*). Page 313. Found often on the edges of dry, especially pine, woods.  
HOARY PEA. GOAT'S RUE. CATGUT (*Tephrosia virginiana*). Page 260.  
(*T. spicata*). Page 261.  
(*T. hispidula*). Page 261.  
BUSH CLOVER (*Lespedeza procumbens*). Page 315. Near the coast.  
(*L. violacea*). Page 316.  
(*L. Stuwei*). Page 316.

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(*L. virginica*). Page 316.  
(*L. capitata*). Page 316.  
(*L. angustifolia*). Page 316.  
PENCIL FLOWER (*Stylosanthes biflora*). Page 180.  
BLUE VETCH (*Vicia Cracca*). Page 452.  
CRANESBILL (*Geranium carolinianum*). Page 262.  
SENECA SNAKEROOT (*Polygala Senega*). Page 90.  
FIELD MILKWORT (*P. sanguinea*). Page 264.  
(*P. Nuttallii*). Page 319.  
FLOWERING SPURGE (*Euphorbia corollata*). Page 92.  
INDIAN MALLOW. VELVET LEAF (*Abutilon Theophrasti*). Page 185.  
(*Sida spinosa*). Page 185.  
SHRUBBY ST. JOHN'S-WORT (*Hypericum prolificum*). Page 430.  
(*H. densiflorum*). Page 430. In pine barrens.  
CANADA ST. JOHN'S-WORT (*H. canadense*). Page 188.  
ORANGE GRASS. PINEWEED (*H. gentianoides*). Page 190.  
FROSTWEED (*Helianthemum canadense*). Page 192.  
(*H. corymbosum*). Page 193.  
PASSION FLOWER (*Passiflora incarnata*). Page 405.  
FARKLEBERRY (*Vaccinium arboreum*). Page 415.  
WHORLED LOOSESTRIFE (*Lysimachia quadrifolia*). Page 198.  
WILD MORNING GLORY (*Ipomoea hederacea*). Page 448.  
WILD POTATO-VINE. MAN-OF-THE-EARTH (*I. pandurata*). Page 419.  
VERVAIN (*Verbena angustifolia*). Page 331.  
FALSE PENNYROYAL (*Isanthus brachiatus*). Page 333.  
SMALL SKULLCAP (*Scutellaria parvula*). Page 335.  
WILD BERGAMOT (*Monarda fistulosa*). Page 121.  
HORSE MINT (*M. punctata*). Page 202.  
AMERICAN PENNYROYAL (*Hedeoma pulegioides*). Page 340.  
CREEPING THYME (*Thymus Serpyllum*). Page 342.  
HORSE NETTLE (*Solanum carolinense*). Page 344.  
CLAMMY GROUND CHERRY (*Physalis heterophylla*). Page 203.  
BLUE TOADFLAX (*Linaria canadensis*). Page 346.  
SCARLET PAINTED CUP (*Castilleja coccinea*). Page 291.  
YELLOW RATTLE (*Rhinanthus Crista-galli*). Page 208.  
BLACK HAW (*Viburnum prunifolium*). Page 423.  
VENUS'S LOOKING-GLASS (*Specularia perfoliata*). Page 352.  
BELLFLOWER (*Campanula ranunculoides*). Page 353.  
HYSSOP-LEAVED THOROUGHWORT (*Eupatorium hyssopifolium*).  
Page 130.  
(*Kuhnia eupatorioides*). Page 132.  
BLAZING STAR (*Liatris scariosa*). Page 357.  
GOLDEN-ROD (*Solidago hispida*). Page 214.  
SLENDER-LEAVED GOLDEN-ROD (*S. tenuifolia*). Page 222.

## HABITATS OF PLANTS

WHITE-TOPPED ASTER (*Seriocarpus asteroides*). Page 140.  
(*S. linifolius*). Page 140.

YELLOW DAISY. BLACK-EYED SUSAN (*Rudbeckia hirta*). Page 226.

YELLOW THISTLE (*Cirsium spinosissimum*). Page 236.

HAIRY HAWKWEED (*Hieracium Gronovii*). Page 240.

## CHAPTER XVII

### WEEDS. ESCAPED FROM CULTIVATION

Certain plants follow, with persistency, the plow and hoe. They prefer soft, cultivated ground to the rocks, woods, and fields. Much of the farmer's problem is how to keep out the unprofitable plants. Many are immigrants. Great steamships and railways give them free passage. They are "vegetable tramps." John Burroughs says: "They are going east, west, north, south. They walk, they fly, they swim; they steal a ride; they travel by rail, by flood, by wind; they go under ground and they go above, across lots, and by the highway."

Not all weeds are unsightly, nor have they all dull blossoms. Most of them, even the pretty ones, make themselves unwelcome by becoming too common. Webster says a weed is "any plant growing in cultivated ground to the injury of the crop or desired vegetation, or to the disfigurement of the place; an unsightly, useless, or injurious plant."

Such as they are, we are bound to give them space in our vegetable economy. The "wheat and tares," we are told, "the good and the bad, will grow together till the end of the world."

In this chapter are also grouped a few plants which have "escaped" and, in certain localities, are found growing wild.

DAY-FLOWER (*Commelina communis*). Page 299. Found in door-yards and gardens.

DAY LILY (*Hemerocallis fulva*). Page 150. An escape.

TIGER LILY (*Lilium tigrinum*). Page 152. An escape.

STAR OF BETHLEHEM (*Ornithogalum umbellatum*). Page 46. An escape.

(*O. nutans*). Page 47. Seldom found. An escape from gardens.

GRAPE HYACINTH (*Muscari botryoides*). Page 300. Found occasionally in fence-rows and corners. An escape.

YELLOW DOCK (*Rumex crispus*). Page 26. A common weed.

BITTER DOCK (*R. obtusifolius*). Page 26.

FIELD OR SHEEP SORREL (*R. Acetosella*). Page 251. A weed found almost everywhere in cultivated ground and lawns,

SMALLER GREEN DOCK (*R. conglomeratus*). Page 27.

## HABITATS OF PLANTS

KNOTWEED (*Polygonum aviculare*). Page 27. A weed in waste places and gardens.

ERECT KNOTWEED (*P. erectum*). Page 27.

COMMON SMARTWEED. WATER PEPPER (*P. hydropiper*). Page 27.

PERSICARIA (*P. pensylvanicum*). Page 251.

PRINCE'S FEATHER (*P. orientale*). Page 252. An escape.

BLACK BINDWEED (*P. Convolvulus*). Page 28. A common weed in waste and cultivated ground.

CLIMBING FALSE BUCKWHEAT (*P. scandens*). Page 383. In gardens, a weed.

LADY'S THUMB (*P. Persicaria*). Page 252. A weed in rather damp places.

PIGWEED. LAMB'S QUARTERS (*Chenopodium album*). Page 28. A common, well-known weed.

RUSSIAN THISTLE (*Salsola Kali*, var. *tenuifolia*). Page 29. Recently introduced, but rapidly gaining ground and difficult to eradicate.

GREEN AMARANTH. PIGWEED (*Amaranthus retroflexus*). Page 29. Common.

TUMBLEWEED (*A. graecizans*). Page 30.

THORNY AMARANTH (*A. spinosus*). Page 29.

CORN SPURREY (*Spergula arvensis*). Page 62. A weed infesting grain fields.

COMMON CHICKWEED (*Stellaria media*). Page 64. A weed, but not aggressive, and good for the chickens.

LONG-LEAVED STITCHWORT (*S. longifolia*). Page 65.

COMMON MOUSE-EAR CHICKWEED (*Cerastium vulgatum*). Page 65.

CORN COCKLE (*Agrostemma Githago*). Page 254. Found in fields of grain. More troublesome in Europe than with us.

BOUNCING BET (*Saponaria officinalis*). Page 256. Probably an escape.

PURSLANE (*Portulaca oleracea*). Page 162. A weed in cultivated grounds.

COMMON BUTTERCUP (*Ranunculus bulbosus*). Page 166.

TALL BUTTERCUP (*R. acris*). Page 166.

CELANDINE (*Chelidonium majus*). Page 168. Imported. A weed found near old garden walls, in damp soil.

WHITE POPPY (*Papaver somniferum*). Page 75. An escape.

CLIMBING FUMITORY (*Adlumia fungosa*). Page 451. Sometimes cultivated, and escaping.

PALE CORYDALIS (*Corydalis sempervirens*). Page 258. Springing up in recent clearings.

GOLDEN CORYDALIS (*C. aurea*). Page 169. The members of this genus are pretty vines with weak stems, found in recent clearings or cultivated ground. They can hardly be ranked as weeds.

## HARPER'S GUIDE TO WILD FLOWERS

SHEPHERD'S PURSE (*Capsella Bursa-pastoris*). Page 79. Common weed.

WHITE MUSTARD (*Brassica alba*). Page 169. Cultivated, but often found growing wild.

HEDGE MUSTARD (*Sisymbrium officinale*). Page 170. Naturalized from Europe, this has become a weed.

SPIDER-FLOWER (*Cleome spinosa*). Page 81. An escape from gardens where it is cultivated. A species, more often found in gardens, has a most offensive scent when in blossom. This is *C. serrulata*.

Mossy STONECROP (*Sedum acre*). Page 171. An escape.

GARDEN ORPINE. LIVE-FOR-EVER (*S. purpureum*). Page 312. An escape, on rocks.

SYRINGA. MOCK ORANGE (*Philadelphus inodorus*). Page 394.

LARGE-FLOWERED SYRINGA (*P. grandiflorus*). Page 394. This and the preceding are found wild in mountains and woods southward, but often are cultivated and "established" in the North.

RED Currant (*Ribes vulgare*). Page 385. The currant of our gardens, found sometimes as an escape.

PRAIRIE OR CLIMBING ROSE (*Rosa setigera*). Page 440. An escape.

DYER'S GREENWOOD. WHIN (*Genista tinctoria*). Page 428. An escape.

BRISTLY LOCUST. ROSE ACACIA (*Robinia hispida*). Page 440. An escape.

ALFALFA (*Medicago sativa*). Page 313. Cultivated and escaping.

SPRING VETCH (*Vicia sativa*). Page 316. A forage plant, cultivated and sometimes spreading to waste ground.

PEA VINE (*V. americana*). Page 453.

COMMON FLAX (*Linum usitatissimum*). Page 319. An escape.

LADY'S SORREL (*Oxalis corniculata*). Page 181. A weed.

HOP TREE. SHRUBBY TREFOIL (*Ptelea trifoliata*). Page 401. A shrub cultivated and often found established in light woods.

SNOW-ON-THE-MOUNTAIN (*Euphorbia marginata*). Page 90. An escape.

CYPRESS SPURGE (*E. Cyparissias*). Page 34. An escape.

CAPER SPURGE. MOLE PLANT (*E. Lathyrus*). Page 34.

POISON OAK. POISON IVY (*Rhus Toxicodendron*). Page 385. The poison ivy, which is gaining ground wherever permitted, must be reckoned among our most undesirable weeds.

COMMON BUCKTHORN (*Rhamnus cathartica*). Page 390. Often cultivated as a hedge plant, and found in some places naturalized.

ALTHAEA (*Hibiscus syriacus*). Page 267. An escape.

COMMON MALLOW. CHEESES (*Malva rotundifolia*). Page 92. Common in cultivated ground.

## HABITATS OF PLANTS

COMMON ST. JOHN'S-WORT (*Hypericum perforatum*). Page 186.  
Sometimes a troublesome weed.

PANSY. HEART'S-EASE (*Viola tricolor*). Page 322. An escape.

CARAWAY (*Carum Carvi*). Page 104. An escape.

WILD CARROT (*Daucus Carota*). Page 108. A troublesome weed.

BLUE MYRTLE. PERIWINKLE (*Vinca minor*). Page 326. An escape.

CYPRESS VINE (*Ipomoea Quamoclit*). Page 446. An escape.

COMMON MORNING GLORY (*I. purpurea*). Page 446. An escape.

CATNIP (*Nepeta Cataria*). Page 121. A common weed.

GROUND IVY. GILL-OVER-THE-GROUND (*N. hederacea*). Page 337.  
In shaded places near dwellings.

DEAD NETTLE (*Lamium amplexicaule*). Page 337. A weed.

MOTHERWORT (*Leonurus Cardiaca*). Page 339. Common.  
(*L. Marrubiastrum*). Page 121.

(*L. sibiricus*). Page 339.

WILD BERGAMOT (*Monarda fistulosa*). Page 121. Often cultivated and escaped.

SUMMER SAVORY (*Satureja hortensis*). Page 341. An escape.

CREEPING THYME (*Thymus Serpyllum*). Page 342. Sometimes an escape.

COMMON NIGHTSHADE (*Solanum nigrum*). Page 123. Appears in damp, cultivated ground.

TOMATILLO (*Physalis ixocarpa*). Page 203. Often spontaneous in gardens.

STRAWBERRY TOMATO. GROUND CHERRY (*P. pruinosa*). Page 203.

JIMSON WEED (*Datura Stramonium*). Page 124. A disagreeable weed.

THYME-LEAVED SPEEDWELL (*Veronica serpyllifolia*). Page 350.  
A weed in lawns.

TARTARIAN HONEYSUCKLE (*Lonicera tartarica*). Page 420. An escape.

TRUMPET HONEYSUCKLE (*L. sempervirens*). Page 437.

AMERICAN OR ITALIAN WOODBINE (*L. Caprifolium*). Page 448.

DAISY FLEABANE. SWEET SCABIOUS (*Erigeron annuus*). Page 138.  
A weed.

HORSE-WEED. BUTTER-WEED (*E. canadensis*). Page 140. Waste places. A common weed.

RAGWEED. ROMAN WORMWOOD. HOGWEED. BITTER - WEED  
(*Ambrosia artemisiifolia*). Page 36.

GREAT RAGWEED (*A. trifida*). Page 37.

SPINY COCKLEBUR. CLOTBUR (*Xanthium spinosum*). Page 224.  
(*Galinsoga parviflora*). Page 143. Common, especially in city yards.

## HARPER'S GUIDE TO WILD FLOWERS

OX-EYE DAISY. WHITE-WEED (*Chrysanthemum Leucanthemum*).  
Page 144. A weed; found in all fields.

COMMON TANSY (*Tanacetum vulgare*). Page 234. Escaped from gardens, where it once was much cultivated for medicinal purposes.

CANADA THISTLE (*Cirsium arvense*). Page 367.

BACHELOR'S BUTTON. BLUEBOTTLE (*Centaurea Cyanus*). Page 368. An escape.

SALSIFY. OYSTER-PLANT (*Tragopogon porrifolius*). Page 296. An escape.

I found a seemingly new species once in a walk along the Pompton fields (New Jersey). It was a pretty crimson flower of the Compositæ, and as I could not find any mention of it in the Manual (an old edition of Gray), I plumed myself on being a discoverer, with all the pride of an amateur astronomer who locates a new asteroid.

My pretty flower was only an oyster-plant "escaped from gardens."

## CHAPTER XVIII

### OPEN, DRY, ROCKY WOODS AND HILLSIDES

“Come ye into the summer woods;  
There entereth no annoy;  
All greenly wave the chestnut leaves,  
And the earth is full of joy.

“I cannot tell you half the sights  
Of beauty you may see,  
The bursts of golden sunshine,  
And many a shady tree.”

—MARY HOWITT.

“The green trees  
Partake the deep contentment; as they bend  
To the soft winds, the sun from the blue sky  
Looks in and sheds a blessing on the scene.  
Scarce less the cleft-born wild flower seems to enjoy  
Existence than the winged plunderer  
That sucks its sweets. The mossy rocks themselves,  
And the old and ponderous trunks of prostrate trees  
That lead from knoll to knoll a causey rude  
Or bridge the sunken brook, and their dark roots  
With all their earth upon them, twisting high,  
Breathe fixed tranquillity. The rivulet  
Sends forth glad sounds, and tripping o'er its bed  
Of pebbly sands, or leaping down the rocks,  
Seems, with continuous laughter, to rejoice  
In its own being.”

—BRYANT.

WILD ORANGE-RED LILY (*Lilium philadelphicum*). Page 152.

Found also in dry soil along roadsides.

FLY POISON (*Amianthium muscaetoxicum*). Page 44.

(*Oakesia sessilifolia*). Page 150.

SMALL SOLOMON'S SEAL (*Polygonatum biflorum*). Page 156.

COLIC-ROOT. STAR GRASS. (*Aletris farinosa*). Page 50.

## HARPER'S GUIDE TO WILD FLOWERS

STEMLESS LADY'S SLIPPER (*Cypripedium acaule*). Page 244.  
LARGER YELLOW LADY'S SLIPPER (*C. parviflorum*, var. *pubescens*).  
Page 160.  
NODDING POGONIA (*Pogonia trianthophora*). Page 248.  
WHORLED POGONIA (*P. verticillata*). Page 160.  
SMALLER WHORLED POGONIA (*P. affinis*). Page 160.  
RATTLESNAKE PLANTAIN (*Epipactis decipiens*). Page 56.  
(*E. pubescens*). Page 54.  
CORAL ROOT (*Corallorrhiza maculata*). Page 304. This species  
has a white lip spotted with crimson.  
(*C. Wisteriana*). Page 304. Lip spotted with crimson.  
(*C. odontorhiza*). Page 303.  
(*C. striata*). Page 304. Lip striped with purple.  
TWAYBLADE (*Liparis liliifolia*). Page 304. Lip entire, purplish.  
GREEN ALDER. MOUNTAIN ALDER (*Alnus crispa*). Page 382.  
(*Polygonum dumetorum*). One of the climbing buckwheat family,  
often found in woods, near the coast. Similar to *P. scandens*,  
page 383.  
ORKED CHICKWEED (*Anychia polygonoides*). Page 60. Some-  
times found in open woods.  
WILD PINK (*Silene pennsylvanica*). Page 256. Often found at  
the base of rocks or on the edges of woods.  
FIRE PINK. CATCHFLY (*S. virginica*). Page 256.  
STARRY CAMPION (*S. stellata*). Page 66.  
MOSS CAMPION (*S. acaulis*). Page 307. Almost an Alpine  
species, found on the summits of the White Mountains and  
northward.  
SPRING BEAUTY (*Claytonia virginica*). Page 258. A streak of  
moist soil will attract this little plant.  
(*C. caroliniana*). Page 258.  
HOOKED CROWFOOT (*Ranunculus recurvatus*). Page 165. The  
hooks are on the achenes.  
EARLY CROWFOOT (*R. fascicularis*). Page 165. The fascicled  
roots of this plant give the specific name.  
EARLY MEADOW RUE (*Thalictrum dioicum*). Page 30.  
RUE ANEMONE (*Anemone thalictroides*). Page 69. Leaves  
similar to those of the meadow rue. A few flowers in an umbel.  
HEPATICA. LIVERLEAF (*Hepatica triloba*). Page 308.  
(*H. acutiloba*). Page 308.  
THIMBLEWEED (*Anemone cylindrica*). Page 71.  
(*A. virginiana*). Page 30. Also in meadows.  
WOOD ANEMONE (*A. quinquefolia*). Page 71. A single flower.  
MARSH CLEMATIS (*Clematis crispa*). Page 451. A southern  
species.  
PURPLE CLEMATIS (*C. ochroleuca*). Page 308. Rare. South of  
New York.

## HABITATS OF PLANTS

WHORLED CLEMATIS (*C. verticillaris*). Page 450. A purple-flowered species.

WILD COLUMBINE (*Aquilegia canadensis*). Page 372. Delights in rocks and rocky soil.

DWARF LARKSPUR (*Delphinium tricorne*). Page 310.

TALL LARKSPUR (*D. exaltatum*). Page 310.

CAROLINA ALLSPICE (*Calycanthus floridus*). Page 451. On hill-sides.

(*C. fertilis*). Page 451.

TWINLEAF. RHEUMATISM ROOT (*Jeffersonia diphylla*). Page 74.

AMERICAN BARBERRY (*Berberis canadensis*). Page 427.

HAIRY ROCK CRESS (*Arabis hirsuta*). Page 81.

(*A. laevigata*). Page 81.

SICKLE-POD (*A. canadensis*). Page 81.

STONECROP (*Sedum ternatum*). Page 83.

FALSE GOAT'S BEARD (*Astilbe biternata*). Page 171. A southern species.

EARLY SAXIFRAGE (*Saxifraga virginiensis*). Page 83.

YELLOW MOUNTAIN SAXIFRAGE (*S. aizoides*). Page 171.

FALSE MITERWORT (*Tiarella cordifolia*). Page 85.

ALUM ROOT (*Heuchera americana*). Page 33.

WILD HYDRANGEA (*Hydrangea arborescens*). Page 395.

PRICKLY GOOSEBERRY. DOGBERRY (*Ribes Cynosbati*). Page 384.

MISSOURI GOOSEBERRY (*R. gracile*). A species with red, stout, long spines, few or no prickles. *Flowers*, white, on long peduncles. *Berries*, rather large, purplish. *Leaves*, finely toothed, 3 to 5 lobed. South of Connecticut.

SMOOTH GOOSEBERRY (*R. oxyacanthoides*). Page 384.

SHAD BUSH. SERVICE BERRY (*Amelanchier canadensis*). Page 397.

(*A. oblongifolia*). Page 397.

(*A. oligocarpa*). Page 397. Cold swamps of mountain woods.

BRAMBLE (*Rubus idaeus*, var. *aculeatissimus*). Page 398.

MOUNTAIN BLACKBERRY (*R. allegheniensis*). Page 398.

CREEPING DALIBARDA (*Dalibarda repens*). Page 87.

AGRIMONY (*Agrimonia gyrosepala*). Page 176.

(*A. mollis*). Page 176.

(*A. rostellata*). Page 176.

CHOKE CHERRY (*Prunus virginiana*). Page 401.

WILD INDIGO (*Baptisia tinctoria*). Page 179.

TICK TREFOIL (*Desmodium nudiflorum*). Page 313.

(*D. grandiflorum*). Page 314.

(*D. rotundifolium*). Page 314.

(*D. bracteosum*). Page 314.

(*D. paniculatum*). Page 314.

(*D. canadense*). Page 314.

## HARPER'S GUIDE TO WILD FLOWERS

WILD BEAN (*Apios tuberosa*). Page 453. In thickets and woods.

GROOVED YELLOW FLAX (*Linum sulcatum*). Page 181. In fields and woods.

SLENDER YELLOW FLAX (*L. virginianum*). Page 181.

VIOLET WOOD SORREL (*Oxalis violacea*). Page 319.

WILD CRANESBILL (*Geranium maculatum*). Page 262. Also in fields adjoining woods.

FRINGED POLYGALA. FLOWERING WINTERGREEN (*Polygala pauciflora*). Page 262.

DWARF SUMACH (*Rhus copallina*). Page 389. Easily known by the winged petioles. Not a poisonous species.

RED-ROOT (*Ceanothus ovatus*). Page 404.

NEW JERSEY TEA (*C. americanus*). Page 404.

VIRGINIA CREEPER. WOODBINE (*Pedera quinquefolia*). Page 390. Not confined to woods, but taking kindly to any kind of soil.

NORTHERN FOX GRAPE (*Vitis labrusca*). Page 391. In thickets with dry or damp soil.

SUMMER GRAPE. PIGEON GRAPE (*V. aestivalis*). Page 392. Also in thickets.

ST. PETER'S-WORT (*Ascyrum stans*). Page 185. In pine barrens.

ST. ANDREW'S CROSS (*A. hypericoides*). Page 186. Wet pine barrens.

VIOLET (*Viola palmata*). Page 322. Also in open, dry fields.

DOWNY YELLOW VIOLET (*V. pubescens*). Page 193.

CANADA VIOLET (*V. canadensis*). Page 373.

LONG-SPURRED VIOLET (*V. rostrata*). Page 322.

PRICKLY PEAR. INDIAN FIG (*Opuntia vulgaris*). Page 194. Found also in sandy fields.

(*O. Rafinesquii*). Page 194.

GREAT WILLOW HERB (*Epilobium angustifolium*). Page 271. Where light woods have been burned over and in recent clearings.

SWEET CICELY (*Osmorhiza Claytoni*). Page 102.

(*O. longistylis*). Page 102.

GOLDEN ALEXANDERS (*Zizia aurea*). Page 198. I have found this pretty plant bordering woods paths, both on dry hillsides and in moist ground. It also may be found on the banks of rivers.

(*Taenidia integerrima*). Page 197.

MEADOW PARSNIP (*Thaspium aureum*). Page 197.

ROUND-LEAVED CORNEL (*Cornus circinata*). Page 405.

WHITE ALDER (*Clethra acuminata*). Page 408.

PRINCE'S PINE. PIPSISSWEWA (*Chimaphila umbellata*). Page 274.

SPOTTED WINTERGREEN (*C. maculata*). Page 274.

SHIN LEAF (*Pyrola elliptica*). Page 110.

(*P. americana*). Page 110.

MOUNTAIN LAUREL. CALICO BUSH (*Kalmia latifolia*). Page 410.

## HABITATS OF PLANTS

**MOUNTAIN HEATH** (*Phyllodice coerulea*).—Family, Heath. A low, evergreen shrub whose stems are crowned with long, narrow leaves. Branches tipped with purplish bell-shaped flowers on long peduncles, single or in clusters. Found on high mountains in New Hampshire, Maine and northward, toward the latter part of summer.

**FETTER BUSH** (*Leucothoë recurva*). Page 410.

**TRAILING ARBUTUS**. **GROUND LAUREL** (*Epigaea repens*). Page 110. Called also Mayflower. Mostly in pine woods.

**CHECKERBERRY**. **CREEPING WINTERGREEN** (*Gaultheria procumbens*). Page 112. Light, sandy woods, especially pine woods.

**BEARBERRY** (*Arctostaphylos Uva-ursi*). Page 413. Often in pine woods.

**ALPINE BEARBERRY** (*A. alpina*). Page 415.

**DEERBERRY**. **SQUAW HUCKLEBERRY** (*Vaccinium stamineum*). Page 415.

**LOW SWEET BLUEBERRY**. **EARLY SWEET BLUEBERRY** (*V. pensylvanicum*). Page 417.

**LATE LOW BLUEBERRY** (*V. vacillans*). Page 417.

**FLOWERING MOSS**. **PYXIE** (*Pyxidanthera barbulata*). Page 114. Pine barrens.

**GALAX** (*Galax aphylla*). Of the same family as the *Pyxie*, the *Diapensia*, this evergreen herb sends up from a tuft of creeping rootstocks roundish, heart-shape, crenately toothed, thick leaves, which are much used for funeral wreaths. A spike of small, white flowers terminates a slender scape. Found southward, in open woods, from Virginia to Georgia.

**CHICKWEED WINTERGREEN** (*Trientalis americana*). Page 116.

**STORAX** (*Styrax grandifolia*). Page 417.

(*S. pulverulenta*). Page 418. Pine barrens.

**STIFF GENTIAN** (*Gentiana quinquefolia*). Page 326.

**SPREADING DOGBANE** (*Apocynum androsaemifolium*). Page 446.

**FOUR-LEAVED MILKWEED** (*Asclepias quadrifolia*). Page 284.

**WHORLED-LEAVED MILKWEED** (*A. verticillata*). Page 118.

**DOWNY PHLOX** (*Phlox pilosa*). Page 285.

**GROUND PINK**. **MOSS PINK** (*P. subulata*). Page 285.

**GREEK VALERIAN** (*Polemonium reptans*). Page 328.

**EARLY SCORPION GRASS** (*Myosotis virginica*). Page 119.

**GROMWELL** (*Lithospermum Gmelini*). Page 200.

**FALSE GROMWELL** (*Onosmodium virginianum*). Page 202.

**SKULLCAP** (*Scutellaria nervosa*). Page 335.

**GIANT HYSSOP** (*Agastache nepetoides*). Page 202.

(*A. scrophulariaefolia*). Page 337.

**LYRE-LEAVED SAGE** (*Salvia lyrata*). Page 340.

(*Blephilia ciliata*). Page 341.

**WOOD MINT** (*B. hirsuta*). Page 341.

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BASIL (*Satureja vulgaris*). Page 341.  
MOUNTAIN MINT (*Pycnanthemum flexuosum*). Page 342.  
(*P. virginianum*). Page 342.  
(*P. Torreyi*). Page 342.  
(*P. incanum*). Page 342.  
(*P. muticum*). Page 342.  
DITTANY (*Cunila origanoides*). Page 123.  
FIGWORT (*Scrophularia marilandica*). Page 347.  
YELLOW GERARDIA (*Gerardia pedicularia*). Page 206.  
DOWNY FALSE FOXGLOVE (*G. flava*). Page 206.  
SMOOTH FALSE FOXGLOVE (*G. virginica*). Page 206.  
COW WHEAT (*Melampyrum lineare*). Page 208.  
EYEBRIGHT (*Euphrasia Oakesii*). Page 127.  
WOOD BETONY. COMMON LOUSEWORT (*Pedicularis canadensis*).  
Page 374.  
LOPSEED (*Phryma Leptostachya*). Page 291.  
HAIRY BEDSTRAW (*Galium pilosum*). Page 351.  
ROUGH BEDSTRAW (*G. asprellum*). Page 129.  
SWEET-SCENTED BEDSTRAW (*G. triflorum*). Page 36.  
PARTRIDGE BERRY (*Mitchella repens*). Page 129. Found especially in coniferous woods.  
BUSH HONEYSUCKLE (*Diervilla Lonicera*). Page 435.  
HAIRY HONEYSUCKLE (*Lonicera hirsuta*). Page 436.  
SNOWBERRY (*Symporicarpos racemosus*). Page 421.  
DOCKMACKIE. ARROW-WOOD (*Viburnum acerifolium*). Page 422.  
DOWNY ARROW-WOOD (*V. pubescens*). Page 422.  
RED-BERRIED ELDER (*Sambucus racemosa*). Page 423.  
HAREBELL. BLUEBELL (*Campanula rotundifolia*). Page 352.  
UPLAND BONESET (*Eupatorium sessilifolium*). Page 132.  
VANILLA PLANT (*Trilisa odoratissima*). Page 294. Pine barrens of Virginia and southward.  
GOLDEN-ROD (*Solidago squarrosa*). Page 214.  
(*S. caesia*). Page 214.  
(*S. stricta*). Page 218.  
(*S. speciosa*). Page 216.  
(*S. arguta*). Page 222.  
(*S. juncea*). Page 220.  
(*S. fistulosa*). Page 218.  
(*S. ulmifolia*). Page 216.  
ASTER (*Aster macrophyllus*). Page 134.  
(*A. undulatus*). Page 359.  
WHITE HEATH ASTER (*A. ericoides*). Page 134.  
WHITE-TOPPED ASTER (*Seriocarpus asteroides*). Page 140.  
OX-EYE (*Heliopsis helianthoides*). Page 224.  
WOODLAND SUNFLOWER (*Helianthus divaricatus*). Page 230.

## HABITATS OF PLANTS

BLUE LETTUCE (*Lactuca villosa*). Page 370.  
RATTLESNAKE-WEED (*Hieracium venosum*). Page 240.  
PANICLED HAWKWEED (*H. paniculatum*). Page 240.  
ROUGH HAWKWEED (*H. scabrum*). Page 240.  
CANADA HAWKWEED (*H. canadense*). Page 240.

## CHAPTER XIX

### DEEP, COOL, SHADED, DAMP WOODS

"Though plants are often referred to primitive woods as their locality, it cannot be true to very many. Only those which require but little light and can bear the drip of trees penetrate the woods, and these have, commonly, more beauty in their leaves than in their pale and almost colorless blossoms."

—THOREAU.

INDIAN TURNIP. JACK-IN-THE-PULPIT (*Arisacma triphyllum*).  
Page 20.

GREEN DRAGON ROOT (*A. Dracontium*). Page 20.

DAY-FLOWER (*Commelina virginica*). Page 299.

BELLWORT (*Uvularia perfoliata*). Page 150.

LARGE-FLOWERED BELLWORT (*U. grandiflora*). Page 150.

WILD LEEK (*Allium tricoccum*). Page 46.

YELLOW CLINTONIA (*Clintonia borealis*). Page 156.

WHITE CLINTONIA (*C. umbellulata*). Page 47.

FALSE LILY OF THE VALLEY (*Maianthemum canadense*). Page 48.

TWISTED-STALK (*Streptopus amplexifolius*). Page 48.

SESSILE-LEAVED TWISTED-STALK (*S. roseus*). Page 243.

INDIAN CUCUMBER-ROOT (*Medeola virginiana*). Page 157.

WAKE ROBIN (*Trillium erectum*). Page 244.

LARGE-FLOWERED WAKE ROBIN (*T. grandiflorum*). Page 48.

NODDING WAKE ROBIN (*T. cernuum*). Page 50.

PAINTED TRILLIUM (*T. undulatum*). Page 50.

ORCHIS (*Orchis rotundifolia*). Page 246.

SHOWY ORCHIS (*O. spectabilis*). Page 246.

TALL, LEAFY GREEN ORCHIS (*Habenaria hyperborea*). Page 23.  
In peat bogs and cold, wet woods.

(*H. dilatata*). Page 52.

RATTLESNAKE PLANTAIN (*Epipactis repens*). Page 54.

SOUTHERN TWAYBLADE (*Listera australis*). Page 160.

TWAYBLADE (*L. convallarioides*). Page 160.

CALYPSO (*Calypso bulbosa*). Page 372.

PUTTY-ROOT. ADAM-AND-EVE (*Aplectrum hyemale*). Page 372.

CRANE FLY ORCHIS (*Tipularia discolor*). Page 24. From the

## HABITATS OF PLANTS

above enumeration it will be seen that many of our finest native orchids flourish only in the shade of thick woods. With the wholesale cutting away of our virginal forests, these flowers disappear, and may soon be as hard to find as the American buffalo.

RICHWEED. CLEARWEED (*Pilea pumila*). Page 26.  
WILD GINGER (*Asarum canadense*). Page 305.  
VIRGINIA SNAKEROOT (*Aristolochia Serpentaria*). Page 305.  
PIPE VINE. DUTCHMAN'S PIPE (*A. macrophylla*). Page 448.  
WOOLLY PIPE VINE (*A. tomentosa*). Page 450.  
BLACK SNAKEROOT. BLACK COHOSH. BUGBANE (*Cimicifuga racemosa*). Page 73.  
RED BANEERRY (*Actaea rubra*). Page 73.  
WHITE BANEERRY (*A. alba*). Page 73.  
ORANGE ROOT. YELLOW PUCCOON (*Hydrastis canadensis*). Page 74.  
BLUE COHOSH (*Caulophyllum thalictroides*). Page 30.  
SPICE BUSH. BENJAMIN BUSH (*Benzoin aestivale*). Page 427.  
BLOODROOT (*Sanguinaria canadensis*). Page 75.  
CELANDINE POPPY (*Stylophorum diphyllum*). Page 168.  
DUTCHMAN'S BREECHES (*Dicentra Cucullaria*). Page 77.  
SQUIRREL CORN (*D. canadensis*). Page 77.  
TOOTHWORT. PEPPER-ROOT (*Dentaria diphylla*). Page 80.  
(*D. laciniata*). Page 80.  
MITERWORT. BISHOP'S CAP (*Mitella diphylla*). Page 85.  
(*M. nuda*). Page 33.  
WITCH-HAZEL (*Hamamelis virginiana*). Page 428. Found also in rich soil along the banks of streams.  
GOAT'S BEARD (*Aruncus sylvester*). Page 86.  
INDIAN PHYSIC. BOWMAN'S ROOT (*Gillenia trifoliata*). Page 86.  
WHITE AVENS (*Geum canadense*). Page 87.  
HOG PEANUT (*Amphicarpa monoica*). Page 454.  
HERB ROBERT (*Geranium Robertianum*). Page 261.  
AMERICAN HOLLY (*Ilex opaca*). A low tree, 20 to 30 feet high, found in moist woods near the coast from Massachusetts southward.  
CASSENA. YAUPON (*I. vomitoria*). Page 402.  
LARGE-LEAVED HOLLY (*I. monticola*). Page 403. Chiefly upon mountains.  
AMERICAN BLADDER NUT (*Staphylea trifolia*). Page 403.  
GREEN VIOLET (*Hybanthus concolor*). Page 94.  
(*Viola blanda*). Page 96. Sometimes found in open, swampy woods.  
ROUND-LEAVED VIOLET. EARLY YELLOW VIOLET (*V. rotundifolia*). Page 193.

## HARPER'S GUIDE TO WILD FLOWERS

YELLOW PASSION FLOWER (*Passiflora lutea*). Page 431. A southern species.

WICOPY. LEATHERWOOD. MOOSEWOOD (*Dirca palustris*). Page 431.

SPIKENARD (*Aralia racemosa*). Page 98.

WILD SARSAPARILLA (*A. nudicaulis*). Page 98.

GINSENG (*Panax quinquefolium*). Page 98.

DWARF GINSENG. GROUND-NUT (*P. trifolium*). Page 100.

BLACK SNAKERoot. SANICLE (*Sanicula marilandica*). Page 102.

DWARF CORNEL. BUNCHBERRY (*Cornus canadensis*). Page 405.

ONE-FLOWERED PYROLA (*Moneses uniflora*). Page 108.

LABRADOR TEA (*Ledum groenlandicum*). Page 408.

GREAT LAUREL (*Rhododendron maximum*). Page 411. Common in the Alleghanies.

CREEPING SNOWBERRY. MOXIE PLUM. CAPILLAIRE (*Chiogenes hispida*). Page 114.

BLUE TANGLE. DANGLEBERRY (*Gaylussacia frondosa*). Page 444.

AMERICAN COWSLIP. SHOOTING STAR (*Dodecatheon Meadia*). Page 278.

INDIAN PINK. PINK-ROOT (*Spigelia marilandica*). Page 373.

PENNYWORT (*Obolaria virginica*). Page 118.

WILD SWEET WILLIAM (*Phlox maculata*). Page 284.

CREEPING PHLOX (*P. stolonifera*). Page 285.

BLUE PHLOX (*P. divaricata*). Page 328.

WATERLEAF (*Hydrophyllum macrophyllum*). Page 119.

(*H. virginianum*). Page 119.

(*H. canadense*). Page 118.

RICH-WEED. STONE-ROOT. HORSE BALM (*Collinsonia canadensis*). Page 202.

CULVER'S-ROOT. CULVER'S PHYSIC (*Veronica virginica*). Page 127.

AMERICAN FLY HONEYSUCKLE (*Lonicera canadensis*). Page 436.

TWIN-FLOWER (*Limnaea borealis*). Page 292.

HORSE GENTIAN. FEVERWORT. WILD COFFEE (*Triosteum perfoliatum*). Page 352.

CRANBERRY TREE (*Viburnum Opulus*, var. *americanum*). Page 421.

WHITE SNAKERoot (*Eupatorium urticaefolium*). Page 132.

(*E. aromaticum*). Page 132.

GOLDEN-ROD (*Solidago latifolia*). Page 214.

(*S. rugosa*). Page 216.

(*S. canadensis*). Page 218.

(*S. serotina*). Page 220.

UMBELLLED ASTER (*Aster umbellatus*). Page 138.

ROBIN'S PLANTAIN (*Erigeron pulchellus*). Page 364.

LEAFCUP (*Polymnia canadensis*). Page 224.

FIREWEED (*Erechtites hieracifolia*). Page 144.

## HABITATS OF PLANTS

GREAT INDIAN PLANTAIN (*Cacalia reniformis*). Page 144.  
PALE INDIAN PLANTAIN (*C. atriplicifolia*). Page 144.  
CYNTHIA (*Krigia amplexicaulis*). Page 237.  
WHITE LETTUCE. RATTLESNAKE-ROOT (*Prenanthes alba*). Page 146.  
WILD LETTUCE (*P. altissima*). Page 146.

## CHAPTER XX

### PARASITIC PLANTS

AMERICAN MISTLETOE (*Phoradendron flavescens*). Page 425. On deciduous trees.

DWARF MISTLETOE (*Arceuthobium pusillum*). Page 426. On pines and larches.

INDIAN PIPE. CORPSE PLANT (*Monotropa uniflora*). Page 110. In shaded woods, especially pine. Possessing no chlorophyll, and parasitic on roots or saprophytic on decaying vegetable matter.

PINESAP. FALSE BEECH DROPS (*M. Hypopitidis*). Page 276. In rich woods, like the preceding.

DODDER. LOVE VINE (*Cuscuta arvensis*). Page 433. In dry soil, parasitic on many small plants.  
(*C. Coryli*). Page 433. Parasitic on shrubs in open woods, etc.  
(*C. Gronovii*). Page 432. The commonest of the genus, parasitic on herbs and shrubs growing in wet or dry woods.

CANCER-ROOT. BEECH-DROPS (*Epifagus virginiana*). Page 351. Parasitic on the roots of beech, and occasionally other trees.

SQUAW-ROOT. CANCER-ROOT (*Conopholis americana*). Page 210. Root parasite.

ONE-FLOWERED CANCER-ROOT (*Orobanche uniflora*). Page 351. In damp woodlands. Other members of this genus attack clover, hemp, tomato vines, tobacco, etc.

## THE FLOWER CALENDAR

### CHAPTER XXI

#### *March, April*

In the latitude of New York but few native wild flowers are hardy enough to endure the severe climate of early spring. March is the month of preparation in the vegetable world. The plants still seem asleep, but myriads of seeds dropped last fall, all the perennial herbs, shrubs and trees feel stirrings of life, and start to grow before the advent of April, the true month of leaves and first blossoms. Some trees, as the silver maple, birches, and alders, blossom very early, introducing the Flower Calendar; and a curious perennial herb called CHRISTMAS FLOWER (*Helleborus viridis*), lately naturalized from Europe, which blossoms from December to April, has been found wild in a few spots in Long Island, Pennsylvania, and West Virginia. It is of the CROWFOOT FAMILY, has minute petals, larger sepals, nodding, single flowers, large, palmate leaves.

Beginning then with March, in the latter half of that month and first part of April, one may quite surely find:

SKUNK CABBAGE (*Symplocarpus foetidus*). Page 21.  
WHITE DOG'S-TOOTH VIOLET (*Erythronium album*). Page 46.  
LIVERLEAF (*Hepatica triloba*). Page 308.  
MARSH MARIGOLD (*Caltha palustris*). Page 166.  
WILD ALLSPICE OR FEVER BUSH (*Benzoin aestivale*). Page 427.  
A shrub with yellow blossoms.  
A SMALL MUSTARD (*Draba caroliniana*). Page 79.  
SNOWDROP and STAR OF BETHLEHEM of our gardens. For the latter, see page 46.  
FETTER BUSH (*Leucothoe axillaris*). Page 410. In bloom until last of April.  
The beautiful YELLOW JESSAMINE of the South (*Gelsemium sempervirens*). Page 432.  
PENNYWORT (*Obolaria virginica*). Page 118.

## HARPER'S GUIDE TO WILD FLOWERS

### April, May

In April the flower season has fairly begun. We may look now for the following blossoms, many of which continue until May, or even later:

Two species of BELLWORT (*Uvularia perfoliata* and *U. grandiflora*), page 150; also the allied species (*Oakesia sessilifolius* and *O. puberula*), page 150. From April to the last of May or first of June.

GRAPE HYACINTH (*Muscari botryoides*). Page 300.

WAKE ROBIN (*Trillium erectum*). Page 244. Until May.

(*T. grandiflorum*). Page 48. (*T. cernuum* and *T. undulatum*). Page 50. The trilliums are often in bloom through the greater part of May.

BLUE-EYED GRASS (*Sisyrinchium gramineum*). Page 302. April-June.

HAZELNUT (*Corylus americana* and *C. rostrata*). Page 380. Two species of this shrub. April, May.

Other shrubs coming into blossom in this month are the birches and alders (*Betula* and *Alnus*). Page 381.

WILD GINGER (*Asarum canadense*). Page 305. Until May.

WILD PINK (*Silene pennsylvanica*). Page 256. April-June.

SPRING BEAUTY (*Claytonia virginica* and *C. caroliniana*). Page 258.

CROWFOOTS (*Ranunculus pusillus*, *R. abortivus* and *R. fascicularis*), pages 164 and 165, may be found in bloom all summer.

EARLY MEADOW RUE (*Thalictrum dioicum*). Page 30. April, May.

WOOD ANEMONE (*Anemone quinquefolia*). Page 71. April, May.

MARSH MARIGOLD (*Caltha palustris*). Page 166. April-June.

WILD COLUMBINE (*Aquilegia canadensis*). Page 372.

DWARF LARKSPUR (*Delphinium tricorne*). Page 310.

RED BANEERRY (*Actaea rubra*). Page 73.

WHITE BANEERRY (*A. alba*). Page 73.

GOLDEN SEAL (*Hydrastis canadensis*). Page 74.

SHRUB YELLOW-ROOT (*Zanthorrhiza apifolia*). Page 451. April-August.

CAROLINA ALLSPICE (*Calycanthus floridus*). Page 451. April-August.

TWINLEAF (*Jeffersonia diphylla*). Page 74. April, May.

BLUE COHOSH (*Caulophyllum thalictroides*). Page 30. April, May.

BLOODROOT (*Sanguinaria canadensis*). Page 75. April, May.

DUTCHMAN'S BREECHES (*Dicentra Cucullaria*). Page 77. April, May.

SQUIRREL CORN (*D. canadensis*). Page 77. April, May.

## THE FLOWER CALENDAR

WHITLOW GRASS (*Draba verna*). Page 77. April, May.

SHEPHERD'S PURSE (*Capsella Bursa-pastoris*). Page 79. April-September.

HEDGE MUSTARD (*Sisymbrium officinale*). Page 170. April, May.

MOUSE-EAR CRESS (*S. Thalianum*). Page 79. April, May.

PEPPER-ROOT (*Dentaria diphylla*). Page 80. April, May.

(*D. laciniata*). Page 80. Until early May.

ROCK CRESS (*Arabis lyrata*). Page 81. April-July.

TRUMPETS (*Sarracenia flava*). April. A southern species of Pitcher-plant, with yellow flowers and long trumpet-shape leaves.

EARLY SAXIFRAGE (*Saxifraga virginiensis*). Page 83. April-June.

FALSE MITERWORT (*Tiarella cordifolia*). Page 85. April-June.

CHOKEBERRY (*Pyrus arbutifolia*). Page 395. April-June.

WILD STRAWBERRY (*Fragaria virginiana*). Page 86. April, May.

SAND CHERRY (*Prunus pumila*). Page 401. April, May.

WILD CRANESBILL (*Geranium maculatum*). Page 262. April-July.

GREEN VIOLET (*Hybanthus concolor*). Page 94. April-July.

WICOPY (*Dirca palustris*). Page 431. April.

GINSENG (*Panax trifolium*). Page 100. April, May.

CASSANDRA (*Chamaedaphne calyculata*). Page 413. April, May.

TRAILING ARBUTUS (*Epigaea repens*). Page 110. April to the first half of May.

FLOWERING MOSS. PYXIE (*Pyxidanthera barbulata*). Page 114. April, May.

MYRTLE (*Vinca minor*). Page 326. April-June.

MOSS PINK (*Phlox subulata*). Page 285. April-June.

GREEK VALERIAN (*Polemonium roptans*). Page 328. April-June.

EARLY SCORPION GRASS (*Myosotis virginica*). Page 119. April-July.

VIRGINIAN COWSLIP (*Mertensia virginica*). Page 330. April, May.

CORN GROMWELL (*Lithospermum arvense*). Page 119. April-June.

SKULLCAP (*Scutellaria parvula*). Page 335. April-July.

DEAD NETTLE (*Lamium amplexicaule*). Page 337. April-October.

ONE-FLOWERED CANCER-ROOT (*Orobanche uniflora*). Page 351. April-July.

BLUETS (*Houstonia caerulea*). Page 129. April-July.

AMERICAN FLY HONEYSUCKLE (*Lonicera canadensis*). Page 436. April-June.

ROBIN'S PLANTAIN (*Erigeron pulchellus*). Page 364. April-June.

## HARPER'S GUIDE TO WILD FLOWERS

PLANTAIN-LEAVED EVERLASTING (*Antennaria plantaginifolia*).

Page 140. April-June.

DWARF DANDELION (*Krigia virginica*). Page 236. April-August.

COMMON DANDELION (*Taraxacum officinale*). Page 237. April-September.

### *May, June, or Later*

In May not only are many of the spring flowers still in bloom, but the summer groups are hurrying on. The list is therefore long. Beginning in May, many flowers continue until July or August. He who overlooks this "merry month" misses the flowers' choicest gifts. The list here given comprises the most important flowers which begin to blossom in May, but continue into, perhaps, late summer or early autumn. Weeds and unimportant plants are omitted.

ARROW GRASS (*Triglochin maritima*). Page 20. May.

ARROW-HEAD (*Sagittaria latifolia*). Page 40. Last of May or first of June until July.

BUNCH-FLOWER (*Melanthium virginicum*). Page 22. CRISPED

BUNCH-FLOWER (*M. latifolium*). Page 46. These two from May to June.

FALSE SPIKENARD (*Smilacina racemosa*, *S. stellata*, *S. trifolia*).

Pages 47 and 48. May, June.

FALSE LILY OF THE VALLEY (*Maianthemum canadense*). Page 48.

TWISTED-STALK (*Streptopus amplexifolius*, *S. roseus*). Pages 48 and 243.

SMALL SOLOMON'S SEAL (*Polygonatum biflorum*). Page 156. Early May.

STAR GRASS (*Hypoxis hirsuta*). Page 157. May, June.

BLUE-EYED GRASS (*Sisyrinchium angustifolium*). Page 302. May, June.

IRIS. LARGER BLUE FLAG (*Iris versicolor*). Page 300. Latter part of May, June, or even July.

The SLENDER BLUE FLAG (*I. prismatica*). Page 371. A little later.

RAM'S HEAD LADY'S SLIPPER (*Cypripedium arietinum*). Page 302.

The SMALLER YELLOW LADY'S SLIPPER (*C. parviflorum*), SMALL WHITE LADY'S SLIPPER (*C. candidum*), and the STEMLESS LADY'S SLIPPER (*C. acaule*), pages 159, 244, may all be looked for in the months of May and June.

SHOWY ORCHIS (*Orchis spectabilis*). Page 246.

FRINGED ORCHIS (*Habenaria dilatata*). Page 52. May-August.

WHORLED POGONIA (*Pogonia verticillata*). Page 160.

(*P. affinis*). Page 160.

## THE FLOWER CALENDAR

ARETHUSA (*Arethusa bulbosa*). Page 250.  
CORAL ROOT (*Corallorrhiza Wisteriana* and *C. striata*). Page 304. May be found in May and June.  
CALYPSO (*C. bulbosa*). Page 372. May-July.  
ADAM-AND-EVE (*Aplectrum hyemale*). Page 372.  
BASTARD TOAD FLAX (*Comandra umbellata*). Page 56.  
DUTCHMAN'S PIPE (*Aristolochia macrophylla*). Page 448.  
BROAD-LEAVED SANDWORT (*Arenaria lateriflora*). Page 64.  
PINE-BARREN SANDWORT (*A. caroliniana*). Page 62. May-July.  
NORTHERN STITCHWORT (*Stellaria borealis*). Page 65.  
FIELD MOUSE-EAR CHICKWEED (*Cerastium arvense*). Page 65.  
This and other species bloom from May to July.  
HOOKED CROWFOOT (*Ranunculus recurvatus*). Page 165.  
SWAMP BUTTERCUP (*R. septentrionalis*). Page 165. May-August.  
BULBOUS BUTTERCUP (*R. bulbosus*). Page 166. May-July.  
The TALL BUTTERCUP (*R. acris*), page 166, so common as to be counted a weed, comes into bloom a little later, from June to August.  
RUE ANEMONE (*Anemonella thalictroides*). Page 69.  
THIMBLEWEED (*Anemone cylindrica*). Page 71. May-July.  
LEATHER FLOWER (*Clematis Viorna*). Page 450. May-August.  
(*C. ochroleuca*). Page 308. Blossoms in May.  
(*C. crispa*). Page 451. May-August.  
The PURPLE CLEMATIS (*C. verticillaris*). Page 450. May and June.  
SPREADING GLOBEFLOWER (*Trollius laxus*). Page 168. May.  
GOLDTHREAD (*Coptis trifolia*). Page 71. May-July.  
SWEET BAY (*Magnolia virginiana*). A small tree often cultivated, blossoming from May to July.  
MAY APPLE (*Podophyllum peltatum*). Page 74. May.  
UMBRELLA LEAF (*Diphylleia cymosa*). Page 75. May.  
COMMON BARBERRY (*Berberis vulgaris*). Page 426.  
CELANDINE POPPY (*Stylophorum diphyllum*). Page 168. May.  
CELANDINE (*Chelidonium majus*). Page 168. May-August.  
PALE CORYDALIS (*Corydalis semperflorens*). Page 258. May-August.  
GOLDEN CORYDALIS (*C. aurea*). Page 169. May-August.  
SPRING CRESS (*Cardamine bulbosa*). Page 80.  
CUCKOO FLOWER (*C. pratensis*). Page 80. May.  
TOWER MUSTARD (*Arabis glabra*). Page 81. May-July.  
(*A. hirsuta*). Page 81. May, June.  
(*A. laevigata*). Page 81. May.  
STONECROP (*Sedum ternatum*). Page 83. May.  
SWAMP SAXIFRAGE (*Saxifraga pensylvanica*). Page 31.  
MITERWORT (*Mitella diphylla*). Page 85. May.  
(*M. nuda*). Page 33. May-July.

## HARPER'S GUIDE TO WILD FLOWERS

SHAD BUSH. SERVICE BERRY (*Amelanchier canadensis*, *A. oblongifolia*, *A. oligocarpa*), with their related species. Page 397. May, June.

DWARF THORN (*Crataegus tomentosa*). Page 398. May.

COMMON CINQUEFOIL (*Potentilla canadensis*). Page 174. May-July.

(*P. monspeliensis*). Page 172. May-August.

WILD CURRENTS and BLACKBERRIES come into bloom during these months, their different species all bearing large, white flowers. See chapter on shrubs.

WILD PLUMS and CHERRIES are due now, including the BEACH PLUM. Their fruit is ripe from one to two months later. See chapter on shrubs.

SCOTCH BROOM (*Cytisus scoparius*). Page 430.

WILD LUPINE (*Lupinus perennis*). Page 313.

HOARY PEA (*Tephrosia spicata* and *T. hispida*). Page 261. May-July.

(*T. virginiana*). Page 260. Blooms a little later, from June to July.

(*Geranium carolinianum*). Page 262. May, June.

FRINGED POLYGALA (*Polygala paucifolia*). Page 262.

SENECA SNAKEROOT (*P. Senega*). Page 90. May-July.

WILD IPECAC (*Euphorbia Ipecacuanhae*). Page 33.

Among the fine shrubs flowering now are several species of HOLLY: CASSENA (*Ilex vomitoria*); DAHOON HOLLY (*I. Cassine*), (*I. monticola*); BLACK ALDER (*I. verticillata*). Pages 401 to 403.

AMERICAN BLADDER NUT (*Staphylea trifolia*). Page 403. May.

COMMON BUCKTHORN (*Rhamnus cathartica*). Page 390.

RED-ROOT (*Ceanothus ovatus*). Page 404. May.

WILD GRAPES, whose fruit is ripe in September, bring forth their sweet-scented flowers in May. Page 396.

POVERTY GRASS (*Hudsonia tomentosa*), and BEACH HEATHER (*H. ericoides*), page 430, bring out their small yellow blossoms in May and June.

Many of the WILD VIOLETS are May flowers. Such are BIRD-FOOT VIOLET (*Viola pedata*), page 321; DOWNY YELLOW VIOLET (*V. pubescens*), page 193; (*V. cucullata*), page 322; SWEET WHITE VIOLET (*V. blanda*), page 96; LANCE-LEAVED VIOLET (*V. lanceolata*), page 94, and others. A few only are as late as June in coming into blossom.

WILD SARSAPARILLA (*Aralia nudicaulis*). Page 98.

SWEET CICELY (*Osmorhiza Claytoni*). Page 102.

GOLDEN ALEXANDERS (*Zizia aurea*). Page 198. Late May and June.

MEADOW PARSNIP (*Thaspium barbinode*). Page 197.

LABRADOR TEA (*Ledum groenlandicum*). Page 408. May-July.

PINXTER FLOWER (*Rhododendron nudiflorum*). Page 441.

## THE FLOWER CALENDAR

RHODORA (*R. canadense*). Page 441.

The woods and hillsides are beautiful with one of our choicest flowering shrubs, the MOUNTAIN LAUREL (*Kalmia latifolia*). Page 410. It is worth taking a trip into New England in June to see the masses of this splendid flower. From late May until early July.

PALE LAUREL (*K. polifolia*). Page 442.

BOG ROSEMARY (*Andromeda glaucophylla*). Page 412. May-July.

BEARBERRY (*Arctostaphylos Uva-ursi*). Page 413.

CREEPING SNOWBERRY (*Chiogenes hispida*). Page 114.

HUCKLEBERRIES, BLUEBERRIES, and CRANBERRIES blossom in May or early June, producing fruit a little later. On Long Island we may have blueberries in the latter part of June. See chapter on shrubs.

WATER VIOLET (*Hottonia inflata*). Page 116.

STAR FLOWER (*Trientalis americana*). Page 116. May-July.

AMERICAN COWSLIP (*Dodecatheon Meadia*). Page 278.

FRINGE TREE (*Chionanthus virginica*). Page 418.

INDIAN PINK (*Spigelia marilandica*). Page 373.

FOUR-LEAVED MILKWEED (*Asclepias quadrifolia*). Page 284.

PHLOX (*Phlox pilosa*), (*P. stolonifera*). Page 285.

BLUE PHLOX (*P. divaricata*). Page 328.

WATERLEAF (*Hydrophyllum macrophyllum*), (*H. virginianum*), pages 118 and 119.

FORGET-ME-NOT (*Myosotis laxa*). Page 330.

CORN GROMWELL (*Lithospermum arvense*). Page 119. May-August.

FOG-FRUIT (*Lippia lanceolata*). Page 120. May-September.

SKULLCAP (*Scutellaria integrifolia*). Page 335.

GROUND IVY (*Nepeta hederacea*). Page 337. May-July.

LYRE-LEAVED SAGE (*Salvia lyrata*). Page 340.

BEARD-TONGUE (*Penstemon hirsutus*). Page 347. May-July.

MARSH SPEEDWELL (*Veronica scutellata*), THYME-LEAVED SPEEDWELL (*V. serpyllifolia*). Page 350. May-August.

WOOD BETONY (*Pedicularis canadensis*). Page 374.

CHAFF-SEED (*Schwalbea americana*). Page 350. May-July.

SQUAW-ROOT (*Conopholis americana*). Page 210.

MOUNTAIN FLY HONEYSUCKLE (*Lonicera caerulea*). Page 435.

Other species of *Lonicera* blooming in May and June are TARTARIAN HONEYSUCKLE (*L. tartarica*), page 420; SWAMP FLY HONEYSUCKLE (*L. oblongifolia*), page 436; TRUMPET HONEYSUCKLE (*L. sempervirens*), page 437, May-October; AMERICAN WOODBINE (*L. Caprifolium*), page 448.

HOBBLE BUSH (*Viburnum alnifolium*); DOCKMACKIE (*V. acerifolium*); DOWNY ARROW-WOOD (*V. pubescens*); WITHE-ROD

## HARPER'S GUIDE TO WILD FLOWERS

(*V. cassinoides*); BLACK HAW (*V. prunifolium*), pages 421 to 423. These species of Viburnum put forth showy blossoms in May and June.

RED-BERRIED ELDER (*Sambucus racemosa*). Page 423. May.

FLEABANE (*Erigeron philadelphicus*). Page 294. May-August.

CYNTHIA (*Krigia amplexicaulis*). Page 237. May-August.

FALL DANDELION (*Leontodon autumnalis*). Page 237. Late in May to November.

RATTLESNAKE - WEED (*Hieracium venosum*). Page 240. May-September.

### *June, July, and August*

Beginning with June, the summer flowers replace those of early spring, many of them continuing in bloom through July, August, and even September. As a rule, perhaps, we may say that they are more hardy than spring flowers, since they are obliged to endure greater heat and drought. Roadside plants and weeds now flourish, as well as many which seek the shade of cool woods. The list following includes those flowers which come into bloom first in June.

BUR-REED (*Sparganium eurycarpum*), (*S. simplex*), (*S. minimum*), pages 38 to 40. June-August.

BOG ASPHODEL (*Narthecium americanum*). Page 149. June, July.

BLAZING STAR (*Chamaelirium luteum*). Page 44. June.

FLY POISON (*Amianthium muscaetoxicum*). Page 44. June, July.

WHITE HELLEBORE (*Veratrum viride*). Page 23. June-August.

WILD ORANGE-RED LILY (*Lilium philadelphicum*); TURK'S-CAP LILY (*L. superbum*); WILD YELLOW LILY (*L. canadense*), pages 152 and 154. Our handsome wild lilies may be found in their favorite haunts all summer until August.

(*Clintonia borealis*). Page 156. June.

GREAT SOLOMON'S SEAL (*Polygonatum commutatum*). Page 156. June.

INDIAN CUCUMBER-ROOT (*Medeola virginiana*). Page 157.

BLACKBERRY LILY (*Belamcanda chinensis*). Page 159. July.

Of the summer orchids we may find many, including

SHOWY LADY'S SLIPPER (*Cypripedium hirsutum*). Page 50. June, July.

(*Orchis rotundifolia*). Page 246. June, July.

REIN ORCHIS (*Habenaria flava*), June, July; and (*H. hyperborea*), June-August. Page 23.

(*H. fimbriata*). Page 247. Late June to August.

(*Pogonia ophioglossoides*). Page 303. June, July.

## THE FLOWER CALENDAR

TWAYBLADE (*Listera cordata*), page 304 (*L. australis*), (*L. convallarioides*), page 160, June.

ADDER'S MOUTH (*Microstylis monophyllos*). Page 24. June, July. (*Liparis liliifolia*), page 304; (*L. Loeselii*), page 24. June, July.

CRANE FLY ORCHIS (*Tipularia discolor*). Page 24. June.

LIZARD'S TAIL (*Saururus cernuus*). Page 56. June-August.

WOOLLY PIPE VINE (*Aristolochia tomentosa*). Page 450. June.

SAND SPURREY (*Sperrularia*). Page 253. Several species are in blossom all summer. They are low herbs with small blossoms.

SANDWORT (*Arenaria serpyllifolia*), in June; (*A. peploides*), page 64, from June to August.

SLEEPY CATCHFLY (*Silene antirrhina*). Page 254. June-September.

Other species of CATCHFLY, as FIRE PINK (*S. virginica*), page 256, and NIGHT-FLOWERING CATCHFLY (*S. noctiflora*), page 68, are in bloom until July or August.

COW LILY (*Nymphaea advena*). Page 162. June-August.

WATER LILY (*Castalia odorata*). Page 68. June-September.

WATER CROWFOOT (*Ranunculus aquatilis*). June-August. SEASIDE CROWFOOT (*R. Cymbalaria*). August. WATER PLANTAIN SPEARWORT (*R. laxicaulis*). August. CURSED CROWFOOT (*R. sceleratus*). BRISTLY CROWFOOT (*R. pennsylvanicus*). TALL BUTTERCUP (*R. acris*). Pages 163 to 166. June-August. (*Anemone virginiana*). Page 30. June-August.

WILD MONKSHOOD (*Aconitum uncinatum*). Page 310. June-August.

MOONSEED (*Menispermum canadense*). Page 394. June, July.

AMERICAN BARBERRY (*Berberis canadensis*). Page 427. June.

CLIMBING FUMITORY (*Adlumia fungosa*). Page 451. June-October.

COMMON FUMITORY (*Fumaria officinalis*). Page 260. June-August.

WILD PEPPERGRASS (*Lepidium virginicum*). Page 79. June-September.

SICKLE-POD (*Arabis canadensis*). Page 81. June-August.

PITCHER-PLANT (*Sarracenia purpurea*). Page 311. June.

The ROUND-LEAVED, LONG-LEAVED, and THREAD-LEAVED SUNDEWS, three species of *Drosera*, pages 81, 83, 312, are small bog plants with insectivorous leaves which open their spikes of small blossoms all summer, continuing into early September.

Mossy STONECROP (*Sedum acre*). Page 171. June, July.

YELLOW MOUNTAIN SAXIFRAGE (*Saxifraga aizoidea*). Page 171. June-August.

Several species of CINQUEFOIL (*Potentilla arguta*); (*P. palustris*), (*P. fruticosa*); SILVER WEED (*P. Anserina*), pages 174 and 312, remain in bloom all summer, and into September.

QUEEN OF THE PRAIRIE (*Filipendula rubra*). Page 260. June, July.

## HARPER'S GUIDE TO WILD FLOWERS

AVENS (*Geum virginianum*). Page 87. June-August.

WILD ROSES (*Rosa canina*) and (*R. carolina*); see chapter on shrubs. Most of the species bloom in June and may continue until the end of July.

WILD INDIGO (*Baptisia tinctoria*). Page 179. June-September.

RATTLE-BOX (*Crotalaria sagittalis*). Page 179. June-September.

DYER'S GREENWEED (*Genista tinctoria*). Page 428. June, July.

CATGUT (*Tephrosia virginiana*). Page 260. June, July.  
(*Coronilla varia*). Page 261. June-August.

TICK TREFOIL (*Desmodiums*), page 314, are in bloom through July.

(*Stylosanthes biflora*). Page 180. June-August.

BLUE VETCH (*Vicia Cracca*). Page 452. June-August.

BEACH PEA (*Lathyrus maritimus*) and (*L. palustris*). Page 317. June until late August or September.

(*Strophostyles helvola*). Page 454. June-September.

BUTTERFLY PEA (*Clitoria mariana*). Page 454. June-August.

COMMON FLAX (*Linum usitatissimum*). Page 319. June-August.

VIOLET WOOD SORREL (*Oxalis violacea*), page 319, and COMMON WOOD SORREL (*O. Acetosella*), page 89. June, July.

HERB ROBERT (*Geranium Robertianum*). Page 261. June-October.

SHRUBBY TREFOIL (*Ptelea trifoliata*). Page 401. June.

The MILKWORTS (*Polygala sanguinea*), page 264; (*P. Nuttallii*), page 319; and (*P. cruciata*), page 320. June, July.

Of the SUMACHS, both harmless and venomous, the species (*Rhus typhina*), (*R. glabra*), (*R. Vernix*), (*R. Toxicodendron*), pages 385 to 389, are in bloom in June and July.

INKBERRY (*Ilex glabra*). AMERICAN HOLLY (*I. opaca*), and other species. Pages 402, 403, and 495. June.

BURNING BUSH (*Erythronium atropurpureum*). STRAWBERRY BUSH (*E. americanus*). Page 456. June.

CLIMBING BITTER-SWEET (*Celastrus scandens*). Page 389. June.

SPOTTED TOUCH-ME-NOT (*Impatiens biflora*). Page 185. June-September.

BUCKTHORN (*Rhamnus alnifolia*). Page 390. June.

(*Cissus Ampelopsis*). Page 391. June.

COMMON ST. JOHN'S-WORT (*Hypericum perforatum*). Page 186.

FROSTWEED (*Helianthemum canadense*). Page 192. June-August.

PRICKLY PEAR (*Opuntia vulgaris*). Page 194. June, July.

SPIKED LOOSESTRIFE (*Lythrum Salicaria*). Page 269. June-September.

PURPLE LOOSESTRIFE (*L. hyssopifolia*). Page 323. June-August.

The unimportant herbs, SEEDBOX, of the genus *Ludwigia*, as *L. alternifolia*, *L. hirtella*, and others described on pages 35, 195, 271, are summer and early autumn bloomers.

## THE FLOWER CALENDAR

SUNDROPS (*Oenothera fruticosa*). Page 195. June-September.  
ENCHANTER'S NIGHTSHADE (*Circaea lutetiana*). Page 98. June-August.  
HERCULES CLUB (*Aralia spinosa*). Page 408. June, July.  
MOCK BISHOP'S-WEED (*Ptilimnium capillaceum*). Page 102. June-October.  
FOOL'S PARSLEY (*Aethusa Cynapium*). Page 106. June-August.  
BUNCHBERRY (*Cornus canadensis*); ROUND-LEAVED CORNEL (*C. circinata*), (*C. paniculata*), pages 405, 406. June, July.  
KINNIKINNIK (*C. Amomum*). Page 406. June.  
SPOTTED WINTERGREEN (*Chimaphila maculata*). Page 274. June, July.  
ONE-FLOWERED PYROLA (*Moneses uniflora*). Page 108. June, July.  
SHIN LEAF (*Pyrola elliptica*) and (*P. americana*) are two pretty plants of our woods, in bloom from June to late July. Page 110.  
CORPSE PLANT (*Monotropa uniflora*). Page 110. June-August.  
FALSE BEECH DROPS (*M. Hypopitys*). Page 276. June-October. These are two common parasitic plants found in pine and other woods.  
CLAMMY AZALIA (*Rhododendron viscosum*). Page 411. July.  
GREAT LAUREL (*R. maximum*). Page 411. June, July.  
SHEEP LAUREL (*Kalmia angustifolia*). Page 442. June, July.  
MALE BERRY (*Lyonia ligustrina*). Page 413. June, July.  
(*Galax aphylla*). Page 491. June.  
BROOK-WEED (*Samolus floribundus*). Page 116. June-September.  
LOOSESTRIFE (*Lysimachia quadrifolia*). Page 198. June, July.  
(*L. terrestris*). Page 198. June-August.  
(*Steironema ciliatum*). Page 200. June-August.  
SEA MILKWORT (*Glaux maritima*). Page 278. June, July.  
COMMON PIMPERNEL (*Anagallis arvensis*). Page 278. June-August.  
SPREADING DOGBANE (*Apocynum androsaemifolium*). Page 446. June-August.  
INDIAN HEMP (*A. cannabium*). Page 418. June-August.  
Many species of Milkweeds may be found along the highways and in woods; especially BUTTERFLY-WEED (*Asclepias tuberosa*). Page 200. June-August. PURPLE MILKWEED (*A. purpurascens*). Page 328. June, July. COMMON MILKWEED (*A. syriaca*). Page 284. June-August. (*A. amplexicaulis*). Page 328. June, July.  
POKE MILKWEED (*A. phytolaccoides*). Page 36. June-August.  
HEDGE BINDWEED (*Convolvulus sepium*). Page 419. June-September.  
FIELD BINDWEED (*C. arvensis*). Page 419. June-August.  
DODDER (*Cuscuta*). Page 432. The different species flourish through the summer.

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WILD SWEET WILLIAM (*Phlox maculata*). Page 284. June-September.

BEGGAR'S LICE (*Lappula virginiana*). Page 330. June-August.

VIPER'S BUGLOSS (*Echium vulgare*). Page 331. June-September.

WHITE Vervain (*Verbena urticaceaefolia*). Page 120. June-August.

SKULLCAP (*Scutellaria galericulata*). Page 335. June-August.

HOREHOUND (*Marrubium vulgare*). Page 120. June-August.

GIANT HYSSOP (*Agastache nepetoides*). Page 202. June-August.

SELF-HEAL (*Prunella vulgaris*). Page 337. June-September.

FALSE DRAGON HEAD (*Physostegia virginiana*). Page 287. June-September.

COMMON HEMP NETTLE (*Galeopsis Tetrahit*). Page 337. June-September.

MOTHERWORT (*Leonurus Cardiaca*). Page 339.  
(*L. Marrubiastrum*). Page 121.  
(*L. sibiricus*). Page 339. June-September.  
(*Belphelia ciliata*) and (*B. hirsuta*), page 341, bloom through August.

AMERICAN PENNYROYAL (*Hedeoma pulegioides*). Page 340. June-August.

Most of the MINTS, as PEPPERMINT, SPEARMINT, etc. (*Mentha*), are in bloom all summer until the middle or last of August.

BITTERSWEET (*Solanum Dulcamara*). Page 456. June-September.

BLACK HENBANE (*Hyoscyamus niger*). Page 203. June, July.

TOADFLAX (*Linaria vulgaris*). Page 204. June-August.

Two species of MONKEY FLOWER (*Mimulus ringens*) and (*M. alatus*), pages 347 and 348, bloom until September.

HEDGE HYSSOP (*Gratiola virginiana*). Page 127. June-August.

WATER SPEEDWELL (*Veronica Anagallis-aquatica*) and AMERICAN BROOKLINE (*V. americana*), page 348, bloom through August.

SCARLET PAINTED CUP (*Castilleja coccinea*). Page 291. June.

COW WHEAT (*Melampyrum lineare*). Page 208. June-September.

BEDSTRAW (*Galium*). Page 128. In flower all summer.

PARTRIDGE BERRY (*Mitchella repens*). Page 129. June, July.

BUSH HONEYSUCKLE (*Diervilla Lonicera*). Page 435. June-August.

SNOWBERRY (*Symporicarpus racemosus*). Page 421. June, July.

TWIN-FLOWER (*Linnaea borealis*). Page 292. June-August.

CRANBERRY TREE (*Viburnum Opulus*), and ARROW-WOOD (*V. dentatum*), pages 421, 422, are shrubs blooming in June and July.

ELDERBERRY (*Sambucus canadensis*). Page 423. June, July.

DAISY FLEABANE (*Erigeron ramosus*). Page 138. June-October.

WHITE-TOPPED ASTER (*Seriocarpus asteroides*). Page 140. June-August.

## THE FLOWER CALENDAR

SALT MARSH FLEABANE (*Pluchea camphorata*). Page 296. June-August.  
(*Tetragonotheca helianthoides*). Page 226. June.  
BLACK-EYED SUSAN (*Rudbeckia hirta*). Page 226. June-September.  
(*Lepachys pinnata*). Page 228. July.  
OX-EYE DAISY (*Chrysanthemum Leucanthemum*). Page 144. June-August.  
MUSK THISTLE (*Carduus nutans*). Page 366. June-October.  
YELLOW THISTLE (*Cirsium spinosissimum*). Page 236. June-August.  
(*Centaurea Jacea*). Page 368. June-September.  
ORANGE HAWKWEED (*Hieracium aurantiacum*). Page 239. June, July.

### *July to August, and Later*

Some orchids, wild roses, heaths, wild peas and beans, St. John's-worts, and mints come into bloom first in July. The array of fall flowers begins toward the last of this month, all plants, as a rule, exhibiting brighter colors, with heavier stems and foliage, than the earlier season's bloom. The following flowers appear in July, many of them keeping in bloom one, two, or three months later:

STAR GRASS (*Aletris farinosa*). Page 50. July, August.  
RED-ROOT (*Lacnanthes tinctoria*). Page 157. July-September.  
FRINGED ORCHIS (*Habenaria obtusata*). Page 23. (*H. psycoides*).  
Page 246. YELLOW FRINGED ORCHIS (*H. ciliaris*). Page 162.  
WHITE FRINGED ORCHIS (*H. blephariglottis*). Page 52. RAGGED  
FRINGED ORCHIS (*H. lacera*). Page 24. Several of the fringed  
orchids are late, blossoming in July and August. These are  
among the most interesting of the summer's flowers.  
(*Calopogon pulchellus*). Page 250. July.  
LADIES' TRESSES (*Spiranthes gracilis*). Page 52. July-September.  
RATTLESNAKE PLANTAIN (*Epipactis repens*). Page 54. July-  
September. (*E. decipiens*). Page 56. July, August.  
CORAL ROOT (*Corallorrhiza maculata*). Page 304. July, August.  
ADDER'S MOUTH (*Microstomis unifolia*). Page 24. July, August.  
COMMON HOP (*Humulus Lupulus*). Page 383. July.  
VIRGINIA SNAKEROOT (*Aristolochia Serpentaria*). Page 305.  
July.  
POKEWEED (*Phytolacca decandra*). Page 60. July-September.  
SEA PURSLANE (*Sesuvium maritimum*). Page 307. July, August.  
CORN COCKLE (*Agrostemma Githago*). Page 254. July.  
MOSS CAMPION (*Silene acaulis*). Page 307. July.

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BOUNCING BET (*Saponaria officinalis*). Page 256. July-September.

DEPTFORD PINK (*Dianthus Armeria*). Page 256. July.

TALL MEADOW RUE (*Thalictrum polygamum*). Page 69. July-September.

VIRGIN'S BOWER (*Clematis virginiana*). Page 392. July, August.

TALL LARKSPUR (*Delphinium exaltatum*). Page 310. July.

BLACK SNAKEROOT (*Cimicifuga racemosa*). Page 73. July.

SEA ROCKET (*Cakile edentula*). Page 310. July-September.

WORMSEED MUSTARD (*Erysimum cheiranthoides*). Page 170. July, August.

DITCH STONECROP (*Penthorum sedoides*). Page 31. July-October. (*Tillaea aquatica*). Page 31. July-September.

HARDHACK (*Spiraea tomentosa*). Page 437. July-September.

YELLOW AVENS (*Geum strictum*). Page 174. July, August.

CLIMBING ROSE (*Rosa setigera*). Page 440. July.

WILD SENNA (*Cassia marilandica*); PARTRIDGE PEA (*C. Chamaecrista*); WILD SENSITIVE PLANT (*C. nictitans*). Page 177. May be found in flower until September.

(*Lespedeza violacea*). Page 316. July-September.

WILD BEAN (*Apis tuberosa*). Page 453. July-September.

KIDNEY BEAN (*Phaseolus polystachyus*). Page 453. July-September.

MILK PEA (*Galactia regularis*). Page 317. July, August.

THREE-SEEDED MERCURY (*Acalypha virginica*). Page 33. July-September.

FLOWERING SPURGE (*Euphorbia corollata*). Page 92. July-October.

DWARF SUMACH (*Rhus copallina*). Page 389. July.

TOUCH - ME - NOT (*Impatiens pallida*). Page 183. July - September.

NEW JERSEY TEA (*Ceanothus americanus*). Page 404. July.

SWAMP ROSE MALLOW (*Hibiscus Moscheutos*). Page 265. July-September.

WHITE HIBISCUS (*H. oculiroseus*). Page 94. July-September.

ST. PETER'S-WORT (*Ascyrum stans*). Page 185. July, August.

ST. ANDREW'S CROSS (*A. hypericoides*). Page 186. July-September.

SHRUBBY ST. JOHN'S-WORT (*Hypericum prolificum*), page 430, July-September; and the species (*H. adpressum*), (*H. muticum*), (*H. punctatum*), (*H. virgatum*), (*H. canadense*), pages 186 to 190, are late summer flowers.

MEADOW BEAUTY (*Rhexia virginica*), (*R. mariana*), page 271, may be found in bloom from July to September.

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The FIREWEEDS (*Epilobium angustifolium*), July, August. (*E. molle*), (*E. densum*), (*E. coloratum*), pages 271 to 273. July-September.

SPIKENARD (*A. racemosa*). Page 98. July.

GINSENG (*Panax quinquefolium*). Page 98. July.

(*Berula erecta*). Page 104. July, August.

The fragrant CLETHRAS (*Clethra alnifolia*) and (*C. acuminata*), page 408, bloom through August into September.

PRINCE'S PINE (*Chimaphila umbellata*). Page 274. July, August.

CHECKERBERRY (*Gaultheria procumbens*). Page 112. July, August.

MARSH ROSEMARY (*Limonium carolinianum*). Page 324. July-September.

FLOATING HEART (*Nymphoides lacunosum*). Page 118. July-September.

(*Asclepias lanceolata*), (*A. rubra*), July. SWAMP MILKWEED (*A. incarnata*). Page 284. July, August.

(*A. verticillata*). Page 118. July.

CYPRESS VINE (*Ipomoea Quamoclit*). Page 446. July-October.

MORNING GLORY (*I. hederacea*). Page 448. July-September.

AMERICAN GERMANDER (*Teucrium canadense*). Page 287. July-September.

FALSE PENNYROYAL (*Isanthus brachiatus*). Page 333. July, August.

MAD-DOG SKULLCAP (*Scutellaria lateriflora*). Page 333. July-September.

HEDGE NETTLE (*Stachys hyssopifolia*). Page 339. July-September.

(*S. tenuifolia*, var. *aspera*). Page 340. July, August.

HORSE MINT (*Monarda punctata*). Page 202. July-September.

WILD BERGAMOT (*M. fistulosa*). Page 121. July, August.

MOUNTAIN MINTS of the genus *Pycnanthemum*, (*P. flexuosum*), (*P. virginianum*), (*P. Torrei*), (*P. incanum*), (*P. muticum*), page 342, are in bloom until September.

WATER HOREHOUND (*Lycopus sessilifolius*). Page 123.

(*L. americanus*). Page 123. July-September.

BUGLE WEED (*L. virginicus*). Page 121. July, August.

HORSE BALM (*Collinsonia canadensis*). Page 202. July-September.

COMMON NIGHTSHADE (*Solanum nigrum*). Page 123. July-September.

SNAPDRAGON (*Antirrhinum Orontium*). Page 125. July-September.

FIGWORT (*Scrophularia marilandica*). Page 347. July-September.

SNAKEHEAD (*Chelone glabra*). Page 125. July-September.

CULVER'S ROOT (*Veronica virginica*). Page 127. July, August.

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GERARDIA (*Gerardia pedicularia*). Page 206. July-October.  
LOPSEED (*Phryma Leptostachya*). Page 291. July, August.  
BUTTONBUSH (*Cephalanthus occidentalis*). Page 420. July, August.  
HAIRY HONEYSUCKLE (*Lonicera hirsuta*). Page 436. July.  
WILD BALSAM-APPLE (*Echinocystis lobata*). Page 424. July-October.  
ONE-SEEDED BUR CUCUMBER (*Sicyos angulatus*). Page 423. July-September.  
BELLFLOWER (*Campanula ranunculoides*). HAREBELL (*C. rotundifolia*). Page 353. July, August.  
CARDINAL-FLOWER (*Lobelia cardinalis*). Page 292. July-September.  
GREAT LOBELIA (*L. siphilitica*), (*L. spicata*), (*L. Canbyi*). Page 355. July-October.  
INDIAN TOBACCO (*L. inflata*). Page 353. July-October.  
WATER LOBELIA (*L. Dortmanna*). Page 355. July-October.  
CLIMBING HEMPWEED (*Mikania scandens*). Page 448. July-September.  
GOLDEN ASTER (*Chrysopsis falcata*). Page 210. July-September.  
GOLDEN-ROD (*Solidago bicolor*). Page 134. July to late August or October.  
(*S. hispida*). Page 214. July-early September.  
SWEET GOLDEN-ROD (*S. odora*). Page 216. July-September.  
(*S. nemoralis*). Page 218. July-November.  
(*S. canadensis*). Page 218. July-September.  
(*S. serotina*). Page 220. July-September.  
ASTER (*A. radula*). Page 357. July-September.  
(*A. novi-belgii*). Page 362. Late July to October.  
(*A. nemoralis*). Page 140. July-September.  
HORSE-WEED (*Erigeron canadensis*). Page 140. July-October.  
PEARLY EVERLASTING (*Anaphalis margaritacea*). Page 140. July, August.  
Four species of CUDWEED (*Gnaphalium polycephalum*), (*G. decurrens*), (*G. uliginosum*), (*G. purpureum*), pages 142 and 143, bloom until October or November.  
HIGHWATER-SHRUB (*Iva oraria*). Page 424. July-October.  
CONE-FLOWER (*Rudbeckia laciniata*). Page 226. July-September.  
TICKSEED (*Coreopsis rosea*). Page 286. July-September.  
FIREWEED (*Erechtites hieracifolia*). Page 144. July-September.  
COMMON GROUNDSEL (*Senecio vulgaris*). Page 235. July-September.  
BULL THISTLE (*Cirsium lanceolatum*). Page 366. July-November.  
SCOTCH THISTLE (*Onopordium Acanthium*). Page 369. July-September.  
BACHELOR'S BUTTON (*Centaurea Cyanus*). Page 368. July-September.

## THE FLOWER CALENDAR

SPANISH BUTTONS (*C. nigra*). Page 368. July-September.

CHICORY (*Cichorium Intybus*). Page 369. July-October.

WILD LETTUCE (*Lactuca canadensis*). Page 239.

(*L. villosa*). Page 370. July-October.

WHITE LETTUCE (*Prenanthes alba*). Page 146. July-October.

(*P. altissima*). Page 146. July-October.

Of the HAWKWEEDS the species (*Hieracium paniculatum*), (*H. scabrum*), and (*H. canadense*), page 240, may bloom until October.

### *August, September, and Later*

A few late orchids, herbs, and shrubs come first into bloom in August, most of them continuing through the fall. The composites are now in their glory, and golden-rods, asters, thistles, eupatoriums, and other members of that aggressive family fill the fields and roadsides with splendid color. The colors of fall flowers are strong and deep, yellows and purples predominating. Golden-rods already mentioned as late July bloomers belong rather to this month, as do many of the asters. Before withdrawing itself for its winter sleep, nature makes one last effort to be gay and beautiful.

WATER PLANTAIN (*Alisma Plantago-aquatica*). Page 40. August, September.

(*Pogonia trianthophora*). Page 248. August.

LADIES' TRESSES (*Spiranthes Beckii*). Page 52.

(*S. praecox*). Page 54. August, September.

RATTLESNAKE PLANTAIN (*Epipactis pubescens*). Page 54. August, September.

CORAL ROOT (*Corallorrhiza odontorhiza*). Page 303. August, September.

(*Polygonella articulata*). Page 58. August, September.

GARDEN ORPINE (*Sedum purpureum*). Page 312. August, September.

GRASS OF PARNASSUS (*Parnassia caroliniana*). Page 85. August, September.

WITCH-HAZEL (*Hamamelis virginiana*). Page 428. August, September.

CANADIAN BURNET (*Sanguisorba canadensis*). Page 87. August, September.

BUSH CLOVER (*Lespedeza procumbens*). Page 315. Late August, September.

HOG PEANUT (*Amphicarpa monoica*). Page 454. August, September.

MARSH MALLOW (*Althaea officinalis*). Page 265. August, September.

(*Kosteletzkyia virginica*). Page 267. August.

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SCOTCH LOVAGE (*Ligusticum scoticum*). Page 106. August.  
COWBANE (*Oxypolis rigidior*). Page 106. August.  
The pretty SABATIAS (*Sabatia stellaris*), (*S. gracilis*), (*S. dodecandra*), page 280, may be looked for in August.  
LOUSEWORT (*Pedicularis lanceolata*). Page 208. August, September.  
TRUMPET-FLOWER (*Tecoma radicans*). Page 433. August, September.  
IRONWEED (*Vernonia noveboracensis*). Page 355. August, September.  
JOE PYE WEED (*Eupatorium purpureum*). Page 294. August, September. (*E. leucolepsis*), (*E. hypsoifolium*), (*E. verbenaefolium*). UPLAND BONESET (*E. sessilifolium*). THOROUGHWORT (*E. perfoliatum*). Pages 130 and 132. Most of this genus begin in August and continue until October.  
BLAZING STAR (*Liatris scariosa*) and (*L. spicata*). Page 357. August—October.  
GOLDEN ASTER (*Chrysopsis mariana*). Page 210. August—October.  
GOLDEN-ROD (*Solidago squarrosa*), (*S. caesia*), (*S. latifolia*). Page 214. These species August, September.  
(*S. bicolor*). Page 134. August—October.  
(*S. puberula*). Page 216. August—October.  
(*S. sempervirens*). Page 222. August—November.  
(*S. patula*). Page 220. August, September.  
(*S. arguta*). Page 222. August, September.  
(*S. neglecta*). Page 222. August—early October.  
(*S. ulmifolia*). Page 216. August, September.  
(*S. rugosa*). Page 216. August, September.  
(*S. graminifolia*). Page 222. August—October.  
(*S. tenuifolia*). Page 222. August—October.  
ASTER (*Aster macrophyllus*). Page 134. August, September.  
(*A. spectabilis*). Page 357. August—October.  
(*A. concolor*). Page 359. Late August—November.  
(*A. patens*). Page 359. August—October.  
(*A. undulatus*). Page 359. August—November.  
(*A. cordifolius*). Page 360. August—October.  
(*A. laevis*). Page 360. August—October.  
(*A. ericoides*). Page 134. August—October.  
(*A. multiflorus*). Page 136. August—October.  
(*A. dumosus*). Page 360. August, September.  
(*A. lateriflorus*). Page 136. August—October.  
(*A. Tradescanti*). Page 136. August—October.  
(*A. paniculatus*). Page 136. August—October.  
(*A. prenanthoides*). Page 364. August—October.  
(*A. puniceus*). Page 364. August—October.

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(*A. umbellatus*). Page 138. August, September.  
(*A. tenuifolius*). Page 362. August–October.  
(*A. subulatus*). Page 362. Early August–October.  
ELECAMPANE (*Inula Helenium*). Page 224. August, September.  
OX-EYE (*Heliopsis helianthoides*). Page 224. August.  
SUNFLOWER (*Helianthus angustifolius*). Page 228. August, September.  
(*H. giganteus*). Page 228. August–October.  
(*H. dvaricatus*). Page 230. August, September.  
(*H. decapetalus*). Page 230. August–October.  
(*Actinomeris alternifolia*). Page 230. August, September.  
BEGGAR-TICKS (*Bidens frondosa*). Page 230. August, September.  
(*B. laevis*). Page 232. August–October.  
SPANISH NEEDLES (*B. bipinnata*). Page 232. August.  
TALL TICKSEED SUNFLOWER (*B. trichosperma*). Page 234. August–October.  
WATER MARIGOLD (*B. Beckii*). Page 234. August–October.  
AUTUMN SNEEZEWEEED (*Helenium autumnale*). Page 234. August–October.  
HAWKWEED (*Hieracium Gronovii*). Page 240. August–October.

### *September, October, and November*

September is the month in which to study fruits. Many flowers of spring and summer now display conspicuous red, blue, or black berries, in bunches or singly, which mingle harmoniously with the autumn flowers. A few plants flower first in September.

CAT-TAIL FLAG (*Typha latifolia*), (*T. angustifolia*). Page 375.  
(*Spiranthes cernua*). Page 54. September, October.  
CLOSED GENTIAN (*Gentiana Andrewsii*). Page 326. September,  
FRINGED GENTIAN (*G. crinita*). Page 324. September.  
(*Kuhnia eupatoroides*). Page 132. September.  
GOLDEN-ROD (*Solidago stricta*). Page 218. September–November.  
(*S. speciosa*). Page 216. September, October.  
(*S. Elliottii*). Page 220. September, October.  
(*Bidens connata*). Page 232. September, October.  
LION'S-FOOT (*Prenanthes serpentaria*). Page 146. September, October.



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     rubra, 73, 495, 500.  
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     517.  
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     507, 511.  
     Green 24, 462.  
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     510.  
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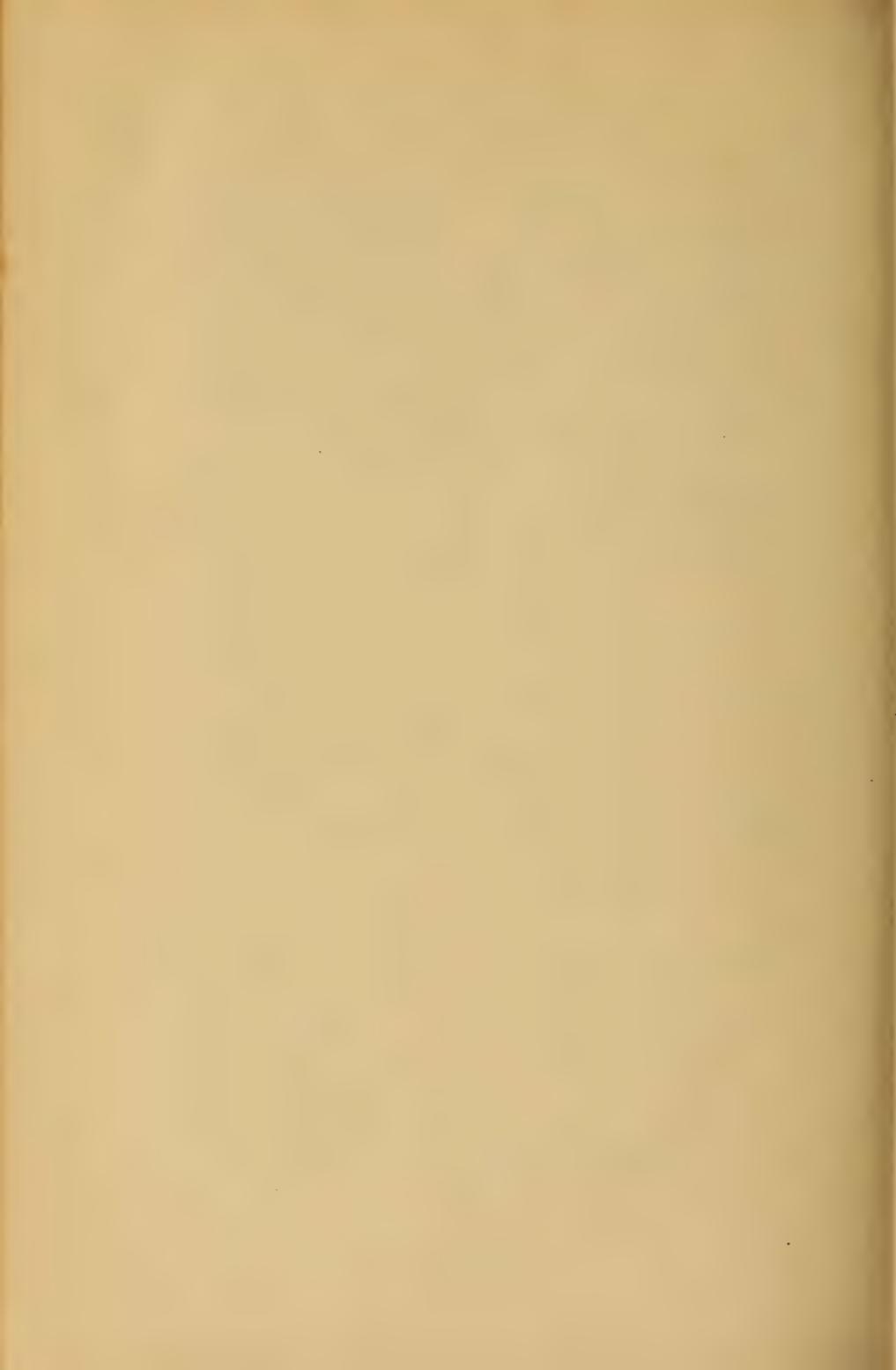
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